JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LABOR & ECONOMIC GROWTH
LANSING

KEITH W. COOLEY
DIRECTOR

MICHIGAN BOARD OF BOILER RULES

Okemos Office Conference Room 3
September 16, 2008
9:30 A.M.
*** A G E N D A ***

1. Call to order and determination of quorum		R. Aben
2. Announcements		R. Aben
A. Introduction of new board members Mark Babcock replacing Richard Kirsch Kim Black replacing Joseph Day Daniel Sovinski replacing Curt Songer Jason Jackard replacing Robert Weber		
B. Members Re-appointed Robert Caraway Anthony Jacobs Roger Jenkins Dennis Rupert Frank Wiechert		R. Aben
C. Election of Board Officers Chair Vice Chair		R. Aben
3. Review and approval of 2009 meeting dates.		R. Aben
4. Approval of June 10, 2008 minutes		R. Aben
5. New Business A. DPI Alpena Power Plant request for extension.	(Document BLR2008-08)	R. Aben
6. Review of Chief Inspector's recommendations for issuance of licenses for Installers and Repairers September 2008 Examinations	(Document BLR2008-09) (To be handed out at meeting)	R. Aben
7. Nuclear Activity Reports	(No Report)	
8. Re-qualification of Section 23 A. Lansing BWL Section 23 renewal.	(Document BLR2008-10)	R. Aben
9. Accident Statistics	(None to Report)	R. Aben

BUREAU OF CONSTRUCTION CODES
P.O. BOX 30254 • LANSING, MICHIGAN 48909
Telephone (517) 241-9334 • Fax (517) 241-6301
www.michigan.gov/dleg

10. Violations Issued	(Document BLR2008-11)	R. Aben
11. Legislative Update	(No Activity)	R. Aben
12. Old Business		
A. Financial Report	(No Report)	
B. Chief Inspector's Report	(Document BLR2008-12) (To be handed out at meeting)	R. Aben
13. Public Comment		
14. Next Meeting – December 9, 2008		
15. Adjournment		

MICHIGAN DEPARTMENT OF LABOR & ECONOMIC GROWTH
Schedule of Meetings/Hearings

2009

Bureau/Commission/Office: Bureau of Construction Codes	
Board/Council/Commission: Board of Boiler Rules	
Address: 6546 Mercantile Way	**Telephone:** (517) 241-9334
City: Lansing	**Michigan Zip Code:** 48911
Contact Person: Lisa Rambo	**Date:** 8/20/2008

The meeting site and parking is accessible. Individuals attending the meeting are requested to refrain from using heavily scented personal care products, in order to enhance accessibility for everyone. People with disabilities requiring additional services (such as materials in alternative format) in order to participate in the meeting should call Lisa Rambo at 517/241-9334 at least 10 work days before the event. DLEG is an equal opportunity employer/program. The Division on Deafness will provide assistance in locating assistive listening devices or interpreters, with advance notice, at (517) 373-1837.

x	**Regular Meeting**		**Special Meeting**		**Rescheduled Meeting**

DATE	TIME	LOCATION
3/17/2009	9:30	Conference Room No. 3, Okemos Building; Okemos, MI
6/10/2009	9:30	Conference Room No. 3, Okemos Building; Okemos, MI WEDNESDAY
9/15/2009	9:30	Conference Room No. 3, Okemos Building; Okemos, MI
12/8/2009	9:30	Conference Room No. 3, Okemos Building; Okemos, MI

The above is provided pursuant to Sections 4 and 5 of Act 267 of Public Acts of 1976, being Sections 15.264 and 15.265 of the Michigan Compiled Laws.

Aben, Robert J (DLEG)

From: Rambo, Lisa K (DLEG)
Sent: Wednesday, August 20, 2008 1:22 PM
To: Stump, Kathy L (DLEG)
Cc: Aben, Robert J (DLEG); Vallance, Bill (DLEG)
Subject: Exam dates for 2009

Kathy, the 2009 boiler division schedules.

2008 **Exam Dates**	**Location**	**Application Deadline Date**
March 11 & 12	Okemos	February 13
June 3 & 4	Okemos	May 8
September 9 & 10	Okemos	August 14
December 2 & 3	Okemos	November 6

National Board

2008 **Exam Dates**	**Location**	**Application Deadline Date**
March 4 & 5	Mercantile	February 13
June 3 & 4	Okemos	May 8
September 2 & 3	Mercantile	August 14
December 2 & 3	Okemos	November 6

Boiler Board Meeting Schedule

DATE	TIME	LOCATION
3/17/2009	9:30	Conference Room No. 3, Okemos Building; Okemos, MI
6/10/2009	9:30	Conference Room No. 3, Okemos Building; Okemos, MI
9/15/2009	9:30	Conference Room No. 3, Okemos Building; Okemos, MI
12/8/2009	9:30	Conference Room No. 3, Okemos Building; Okemos, MI

Thank You,
Lisa Rambo
Office Supervisor
DLEG/BCC/Boiler Division
Phone: (517) 241-9064
Fax: (517) 241-6301
Providing for Michigan's Safety in the Built Environment

MICHIGAN BOARD OF BOILER RULES
DEPARTMENT OF LABOR & ECONOMIC GROWTH
BUREAU OF CONSTRUCTION CODES
Conference Room #3
2501 Woodlake Circle
Okemos, Michigan 48864

MINUTES
June 10, 2008
9:30 a.m.

MEMBERS PRESENT
Mr. Richard Kirsch, Vice Chair
Mr. Roger Jenkins, Secretary
Mr. Larry Black
Mr. Caraway
Mr. Dennis Rupert
Mr. Neil Vierson
Mr. Henry Green, Present as Ex-Officio

MEMBERS ABSENT
Mr. Joseph Day, Chair
Mr. Jeffrey Appel
Mr. Jacobs
Mr. Curt Songer
Mr. Frank Wiechert

MI DEPARTMENT OF LABOR & ECONOMIC GROWTH PERSONNEL ATTENDING
Mr. Robert Aben, Chief, Boiler Division
Mr. William Vallance, Assistant Chief, Boiler Division
Ms. Lisa Rambo, Office Supervisor, Boiler Division
Beth Aben, Deputy Director, Bureau of Construction Codes.

OTHERS IN ATTENDANCE
Timothy G. Pulcini, Hunt Valve
James Hudson, Hunt Valve
Kevin Jahn, B&V Mechanical
Mark Fluhart, Monarch Welding and Engineering, Inc.
Frank Wimmer, Monarch Welding and Engineering, Inc.

1. **CALL TO ORDER AND DETERMINATION OF QUORUM**

The meeting was called to order at approximately 9:35 a.m. by Mr. Kirsch. A quorum was not present at that time.

2. **APPROVAL OF MINUTES**

A **MOTION** was made by Mr. Rupert and seconded by Mr. Jenkins to recommend approval at the September 16, 2008 meeting. **MOTION CARRIED**

3. **ANNOUNCEMENTS.**

Board members positions.

Introduction of the new deputy director Beth Aben. Mrs. Aben addressed the board members.

4. **NEW BUSINESS**

Serverstal rotary joint waiver of code requirements approval request Document BLR2008-01.

A **MOTION** was made by Mr. Caraway, and supported by Mr. Vierson to accept Serverstal rotary joint waiver of code requirement application as presented. Document BLR2008-01. **MOTION CARRIED.**

5. **REVIEW OF CHIEF INSPECTOR'S RECOMMENDATIONS FOR ISSUANCE OF LICENSES FOR REPAIRERS AND INSTALLERS. – WILLIAM VALLANCE**

The board reviewed the March 2008 and June 2008 examinations results. Document BLR2008-02.

A **MOTION** was made by Mr. , and supported by Mr. t to approve issuance of a license for the individuals that passed the March 2008 and June 2008 examination. Document BLR2007- . **MOTION CARRIED.**

6. **NUCLEAR ACTIVITY REPORTS**

No Report

7. **RE-QUALIFICATION OF SECTION 23 – ROBERT ABEN**

Consumers Energy, request for Section 23 Exemption. (Document BLR2008-03)

Recommending a motion to grant a Section 23 Exemption for Consumers Energy for repairs to boilers and piping at its 7100 Croswell Street, West Olive facility for a period of three years to expire on January 1, 2011 or continue until the next review can be conducted.

A **MOTION** was made by Mr. Jenkins and seconded by Mr. Vierson to recommend approval at the September 16, 2008 meeting. **MOTION CARRIED**

Dow Chemical Company, request for Section 23 Exemption. (Document BLR2008-04)

Recommending a motion to grant a Section 23 Exemption for Dow Chemical Company for repairs to boilers and piping at its Michigan Operation, Building 593, Midland facility for a period of three years to expire on January 1 2011 or continue until the next review can be conducted.

A **MOTION** was made by Mr. Rupert and seconded by Mr. Jenkins to recommend approval at the September 16, 2008 meeting. **MOTION CARRIED**

8. **ACCIDENT STATISTICS – ROBERT ABEN**

(Document BLR2008-05).

Received and Filed.

9. **VIOLATIONS ISSUED – ROBERT ABEN**

The board reviewed the file for Document BLR2008-06 .

Received and Filed.

10. **LEGISLATIVE UPDATE**

11. **OLD BUSINESS – ROBERT ABEN**

a. Financial Report – **No Report**

b. Chief Inspector's Report – Robert Aben. Document BLR2008-07.

12. **PUBLIC COMMENT**

No Report

13. **NEXT MEETING – SEPTEMBER 16, 2008 CONFERENCE ROOM #3.**

14. **ADJOURNMENT**

The meeting was adjourned at 11:34 a.m.

Approved: _____ Date _____
Chair

April 11, 2007

Mr. Leonard D. Werda
Chief Engineer/Plant Superintendent
Decorative Panels Alpena
416 Ford Ave.
Alpena, MI 49707

Subject: Request for Certificate Extension on Boilers R026437, R026438, and R032732.

Dear Mr. Werda:

The Board of Boiler Rules reviewed your request on March 19, 2007 at a regularly scheduled meeting and approved your request for extension of the inspection certificates for subject boilers until November 23, 2007. The boilers shall be shut down no later then that date and internally inspected.

Sincerely,

Robert J. Aben Jr., Chief
Boiler Division

JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LABOR & ECONOMIC GROWTH
LANSING

KEITH W. COOLEY
DIRECTOR

August 22, 2008

(Document BLR2008-08)

To: Members, Board of Boiler Rules

From: Robert J. Aben Jr.

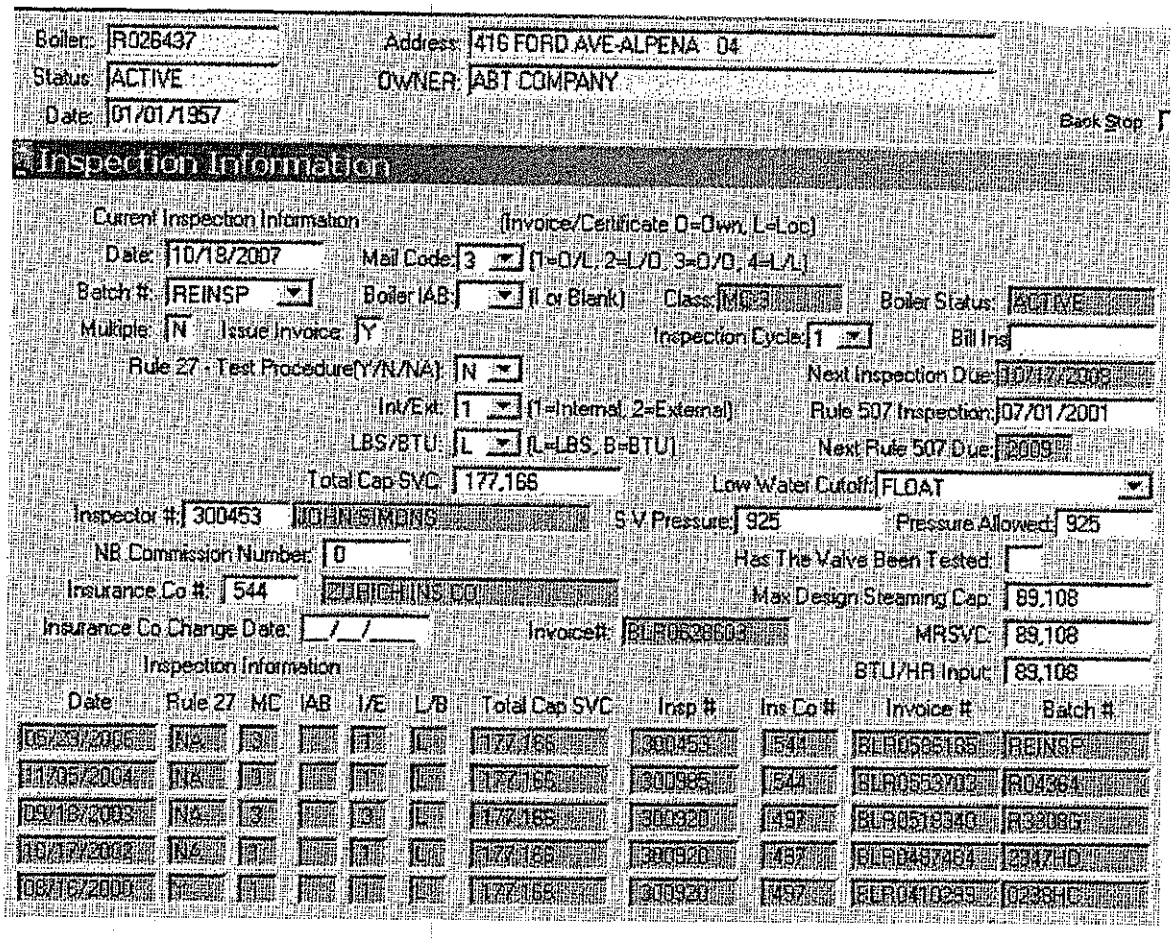
Subject: DPI Request for Extension of Inspection Certificates for Boilers R026437, R026438, and R0327321.

Dear Members;

I have reviewed the attached request and boiler division file for boilers R026437, R026438, and R032732 and provide the following information. Boilers R026437 and R026438 are water tube boiler manufactured by B & W. The maximum steaming capacity is 89,108 lb/hr at 975 psi. Safety valves are set at 975 and have relieving capacity of 177,166 lb/hr. These boilers are coal fired. Boiler R032732 is a 1961 water tube manufactured by Wicks. The maximum steaming capacity is 77,662 lb/hr at 475 psi. Safety valves are set at 355 psi and have a relieving capacity of 81,251 lb/hr. this boiler is fire with bark with <10% gas back-up.

A request for extension of the inspection certificate was presented to the board at the March 19, 2007 meeting for the same 3 boilers. The request was granted for a 6 month extension.

I have spoken with Mr. Werda, Chief Engineer for DPI and explained that it is not the board's intent to allow the use of multiple extension requests to extent the operating cycle of a boiler. Other methods are provided in the boiler rules for cases where a boiler operating cycle between certificate inspections needs to be extended. I referred him to Rule R 408.4058 which provides for a 24 month internal inspection cycle.



Boiler: R026437 Address: 416 FORD AVE-ALPENA 04
Status: ACTIVE OWNER: ABT COMPANY
Date: 01/01/1957 Back Stop

Inspection Information

Current Inspection Information (Invoice/Certificate O=Own, L=Loc)
Date: 10/18/2007 Mail Code: 3 (1=O/L, 2=L/O, 3=O/O, 4=L/L)
Batch #: REINSP Boiler IAB: (L or Blank) Class: MS-3 Boiler Status: ACTIVE
Multiple: N Issue Invoice: Y Inspection Cycle: 1 Bill Ins:
Rule 27 - Test Procedure(Y/N/NA): N Next Inspection Due: 10/17/2008
Int/Ext: 1 (1=Internal, 2=External) Rule 507 Inspection: 07/01/2001
LBS/BTU: L (L=LBS, B=BTU) Next Rule 507 Due: 2009
Total Cap SVC: 177,168 Low Water Cutoff: FLOAT
Inspector #: 300453 JOHN SIMONS S.V. Pressure: 925 Pressure Allowed: 925
NB Commission Number: 0 Has The Valve Been Tested:
Insurance Co #: 544 ZURICH INS CO Max Design Steaming Cap: 89,108
Insurance Co Change Date: / / Invoice#: BLR0528603 MRSVC: 89,108
Inspection Information BTU/HR Input: 89,108

Date	Rule 27	MC	IAB	I/E	L/B	Total Cap SVC	Insp #	Ins Co #	Invoice #	Batch #
05/23/2006	N/A	3		1	L	177,168	300453	544	BLR0585185	REINSP
11/05/2004	N/A	3		1	L	177,168	300986	544	BLR0553703	R04364
09/16/2003	N/A	3		1	L	177,185	300920	497	BLR0519340	R3209G
10/17/2002	N/A	1		1	L	177,168	300920	497	BLR0497484	2947HD
08/16/2000	N/A	1		1	L	177,168	300920	497	BLR0410299	0238HC

Boiler: R026438 Address: 416 FORD AVE-ALPENA 04

Status: ACTIVE OWNER: ABT COMPANY

Date: 01/01/1957 Back Stop:

Inspection Information

Current Inspection Information (Invoice/Certificate O=Own, L=Loc)

Date: 10/18/2007 Mail Code: 3 (1=O/L, 2=L/O, 3=O/O, 4=L/L)

Batch #: REINSP Boiler IAB: (I or Blank) Class: MC 3 Boiler Status: ACTIVE

Multiple: N Issue Invoice: Y Inspection Cycle: 1 Bill Ins:

Rule 27 - Test Procedure(Y/N/NA): N Next Inspection Due: 10/17/2008

Int/Ext: 1 (1=Internal, 2=External) Rule 507 Inspection: 07/01/2001

LBS/BTU: L (L=LBS, B=BTU) Next Rule 507 Due: 2009

Total Cap SVC: 177,166 Low Water Cutoff: PROBE

Inspector #: 300453 JOHN SIMONS S.V Pressure: 925 Pressure Allowed: 925

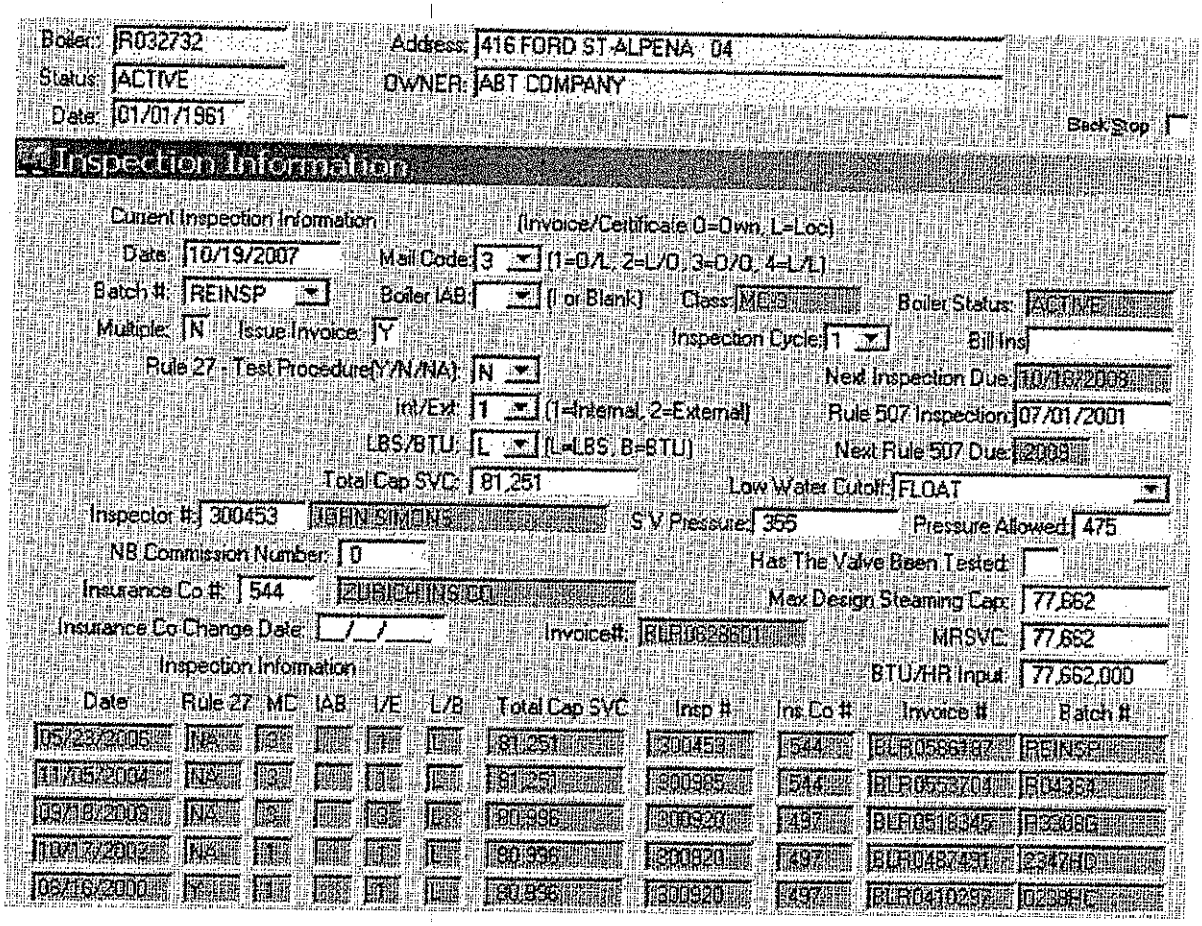
NB Commission Number: 0 Has The Valve Been Tested:

Insurance Co #: 544 ZURICH INS CO Max Design Steaming Cap: 89,108

Insurance Co Change Date: / / Invoice#: BLR0628602 MRSVC: 89,108

Inspection Information BTU/HR Input: 89,108,000

Date	Rule 27	MC	IAB	I/E	L/B	Total Cap SVC	Insp #	Ins Co #	Invoice #	Batch #
05/23/2006	NA	3		1	L	177,166	300453	544	BLR0566156	REINSP
11/05/2004	NA	3		1	L	177,166	300985	544	BLR0553702	R04364
09/16/2003	NA	3		2	L	177,166	300920	497	BLR0518343	R03086
10/17/2002	NA	1		1	B	177,166	300920	497	BLR0497488	R2347HD
08/15/2000	N	1		1	B	177,166	300920	497	BLR0410298	R02881D



Boiler: R032732 Address: 416 FORD ST ALPENA 04
Status: ACTIVE OWNER: ABT COMPANY
Date: 01/01/1961 Back Stop

Inspection Information

Current Inspection Information (Invoice/Certificate 0=Own, L=Loc)
Date: 10/19/2007 Mail Code: 3 [1=O/L, 2=L/O, 3=O/O, 4=L/L]
Batch #: REINSP Boiler IAB: [I or Blank] Class: MCS Boiler Status: ACTIVE
Multiple: N Issue Invoice: Y Inspection Cycle: 1 Bill Ins:
Rule 27 - Test Procedure(Y/N/NA): N Next Inspection Due: 10/19/2008
Int/Ext: 1 (1=Internal, 2=External) Rule 507 Inspection: 07/01/2001
LBS/BTU: L (L=LBS, B=BTU) Next Rule 507 Due: 2009
Total Cap SVC: 81,251 Low Water Cutoff: FLOAT
Inspector #: 300453 JOHN SIMONS S/V Pressure: 355 Pressure Allowed: 475
NB Commission Number: 0 Has The Valve Been Tested:
Insurance Co #: 544 PUBLIC INS CO Max Design Steaming Cap: 77,662
Insurance Co Change Date: / / Invoice#: RLR0628601 MRSVC: 77,662
BTU/HR Input: 77,662,000

Inspection Information

Date	Rule 27	MC	IAB	I/E	L/B	Total Cap SVC	Insp #	Ins Co #	Invoice #	Batch #
05/23/2005	NA	3		1	L	81,251	300453	544	RLR0586167	REINSP
11/05/2004	NA	3		1	L	81,251	300985	544	RLR0552704	R04364
09/18/2003	NA	3		1	L	80,996	300920	497	BLR05 8345	R3408G
10/17/2002	NA	1		1	L	80,996	300920	497	RLR0487491	R2472HD
06/16/2000	N	1		1	L	80,996	300920	497	RLR0410297	D258HE

JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LABOR & ECONOMIC GROWTH
LANSING

ROBERT W. SWANSON
DIRECTOR

February 27, 2007

(Document BLR2007-03)

To: Members, Board of Boiler Rules

From: Robert J. Aben Jr.

Subject: DPI Alpena Power Plant request for extension of certificate of Inspection for Boiler R026437, R026438, R032732.

Dear Members;

I have reviewed the attached request and the boiler division files for boiler number R026437, R026438 and R032732 and provide the following information. Boilers R026437 and R026438 are 1957 water tube boilers manufactured by B and W. The maximum capacity is 89,108 lb/hr at 975 psi. Safety valves are set at 975 psi and have a relieving capacity of 177,166 lb/hr. Boiler R032732 is a 1961 water tube boiler manufactured by Wicks. The maximum capacity is 77,662 lb/hr at 475 psi. Safety valves are set at 355 psi and have a relieving capacity of 81,251 lb/hr.

coal

Bark

Approved correct fuel type on data base

110% 995

Providing for Michigan's Safety in the Built Environment

BUREAU OF CONSTRUCTION CODES & FIRE SAFETY
BOILER DIVISION
P.O. BOX 30254 • LANSING, MICHIGAN 48909
Telephone (517) 241-9334 • Fax (517) 241-6301
www.michigan.gov

DPI Alpena Power Plant

6-20-08

Boiler Division

JUN 23 2008

RECEIVED

Mr. Robert Aben
State of Michigan
Chief Inspector, Boiler Division
P.O. Box 30254
Lansing, MI 48909

Re: Six {6} Month internal inspection extension boilers
R026437, R026438, R032732, R062210

Dear Mr. Aben , Mr. B.Vallance

This letter is a request for six {6} month extension of our current boiler certificates that expire 10/17/08 we are seeking an extension to no later than 4/18/09. On 6/13/08 the Zurich Boiler inspector Ben Lawrence and I conducted an external inspection of the power boilers that proved to be in proper and safe operating condition located at Decorative Panels Mill Alpena Michigan. I am sending all requested information to be reviewed by the state of Michigan board for approval. Please let me know if any further information is required.

Sincerely

Leonard D. Werda
Chief Engineer
Power Plant Superintendent
Decorative Panels Alpena
416 ford Ave.
Alpena, MI. 49707

Bus: 989-356-8519
Cell: 989-464-7028
Fax 989-356-2504
Len.Werda@decpanels.com

CC: Tim Clark, Mike Kilbane, Lloyd Springer, Dan Fluker

ZURICH

6/17/08
To: Robert Aben, Chief Inspector

Zurich
Risk Engineering

1400 American Lane
Schaumburg, IL
60196-1056

847.605.6000
Fax: 847.605.7854

www.zurichservices.com
www.zurichna.com

At the request of Len Werda, Power Plant Superintendent at Decorative Panels in Alpena, I am giving my approval for extension of their certificates of operation for boilers at this location.

A review of the boiler operator training and boiler maintenance was review and found adequate. The chemical treatment of the boilers is satisfactory. The boilers run under normal parameters. The protective equipment for the boilers was found to be adequate and replacement procedures are in place.

An external inspection was performed to boilers MIR 026437, MIR 026438, and MIR 032732. There were no signs of leaks. The relief valves were adequate pressures and capacities. There are no signs of improper operation or firing. No adverse conditions noted.

I feel confident in Mr. Werda and his staff as to the safe operation of these boilers and agree with the owners in asking the board to extend the certificates of operation for an additional 6 months, to 4/18/2009.

If you have any questions, please contact me at 616-784-1732 or my immediate supervisor, Douglas Pepe at 708-342-0528.

Sincerely,

Ben Lawrence
Risk Engineering Representative
Zurich Services

Len Werda

From: Natalie Verburg [natalie.verburg@zurichna.com]
Sent: Thursday, June 19, 2008 3:54 PM
To: Len Werda
Cc: Benjamin Lawrence
Subject: Decorative Panels Interational Certificate Extension

Certificate Extension - Extern...

Attached below you will find a Risk Engineering report generated as a result of recent service provided to your company by one of our Risk Engineers. Should you have any questions concerning the attached report, please contact your Risk Engineer, Benjamin Lawrence at Benjamin.Lawrence@zurichna.com.

(See attached file: Certificate Extension - External Inspection.doc)

Sincerely,

Natalie Verburg

Segment Assistant
Risk Engineering
Zurich Services Corporation

Regards,

Natalie Verburg
Zurich Services Corporation
Risk Engineering
Boiler and Machinery

847-605-7787 Office
847-605-7854 Fax
natalie.verburg@zurichna.com

REINSPECTION REPORT - ALL BOILERS

Michigan Department of Labor & Economic Growth
Bureau of Construction Codes
Boiler Division
P.O. Box 30254, Lansing MI 48909
(517) 241-9334

Authority: 1965 PA 290

OUTSTANDING BALANCE:
INVOICE NUMBER:

DATE INSPECTED:* 10/18/2007 OWNER OR BATTERY NO.: BOILER NO.:* MIR026438 OTHER NO.: 19504

KIND OF INSP.: ☑ INT ☐ EXT CERTIFICATE INSP.: ☑ YES ☐ NO NEXT RULE 507 DUE:* 2009 DATE RULE 507 COMPLIED: 07/01/2001

OWNER/USER
Abt Co
416 Ford Ave
Alpena, MI 49707-2346

LOCATION
Decorative Panels International
416 Ford Ave

Alpena, MI 49707-2346

RULE 27 COMPLIED: ☐ YES ☐ NO ☑ N/A
NATURE OF BUSINESS: Manufacture
SPECIFIC LOCATION: * Pwr Hse
BOILER LOCATION COUNTY: Alpena

USE: * Power
CONSTRUCTION: * Welded
TYPE: * Water Tube

MANUFACTURER: * Babcock & Wilcox
YEAR BUILT:* 1957
YEAR INSTALLED: * 1957

FUEL:* Gas
METHOD OF FIRING:* Automatic

PRESSURE GAGE: * Y
TESTED: * ☐ YES ☑ NO

LOW WATER CUT OFF:* Probe Type
TESTED: * ☐ YES ☑ NO

507 HYDRO TEST: ☐ YES ☑ NO MANHOLE: * Y
_____ PSI

PRESSURE ALLOWED
THIS INSPECTION: * 925
PREVIOUS INSPECTION: 925

SAFETY VALVE SET AT: * 925
HAS THE VALVE BEEN TESTED: ☐ YES ☑ NO

BTU/HR INPUT: 89108000

POWER BOILER HEATING SURFACE: * 14469
MIN. REQUIRED SAFETY VALVE RELIEVING CAPACITY BASED ON:* BTU Input
TOTAL CAP. OF SAFETY VALVES:* 177166

MIN. S. V. RE. CAP. REQUIRED: * 89108
IS CAPACITY ADEQUATE: * ☑ YES ☐ NO

CERTIFICATE POSTED: ☑ YES ☐ NO
IS CONDITION OF BOILER SUCH THAT A CERTIFICATE MAY BE ISSUED: * ☑ YES ☐ NO (explain fully under condition)

CERTIFICATE DUE DATE: 10/18/2008

CONDITIONS OF BOILER: (attach additional sheet, if necessary)
UT testing revealed some tubes on south wall were thinning. 40 tubes on the south wall were replaced, 7 other tubes were patched welded. Very little corrosion or scale. No signs of improper operation. Water lines indicate proper level control. Fireside looks free of obstructions with no sooting. No other adverse conditions noted.

REQUIREMENTS - OWNER/USER MUST COMPLY WITH THESE REQUIREMENTS: (attach additional sheet, if necessary)

NAME AND TITLE OF PERSON TO WHOM REQUIREMENTS WERE EXPLAINED:
Len Werda

REQUIREMENTS FOLLOW UP DATE:

VIOLATIONS ISSUED	ORDER NO.	COMPLIANCE DATE
☐ YES ☑ NO		

I HEREBY CERTIFY THIS IS A TRUE REPORT OF MY INSPECTION.

SIGNATURE OF INSPECTOR: John Simons LICENSE NO. MI 300453 COMPANY NO. 544
John Simons

NATIONAL BOARD COMMISSION NUMBER: 12665

LAST INSPECTED BY

INSPECTOR: John Simons
EMPLOYER: Zurich American Insurance Co

LICENSE NO.: MI 300453
COMPANY NO.: 544

MAIL CODE: 3
MC1 = INVOICE TO O/U, CERT TO LOCATION
MC2 = INVOICE TO LOCATION, CERT TO O/U
MC3 = INVOICE & CERT TO O/U
MC4 = INVOICE & CERT TO LOCATION

REINSPECTION REPORT - ALL BOILERS

Michigan Department of Labor & Economic Growth
Bureau of Construction Codes
Boiler Division
P.O. Box 30254, Lansing MI 48909
(517) 241-9334

Authority: 1965 PA 290

OUTSTANDING BALANCE:
INVOICE NUMBER:

DATE INSPECTED:* 10/18/2007 OWNER OR BATTERY NO.: 2 BOILER NO.:* MIR026437 OTHER NO.: 19503

KIND OF INSP.: ☑ INT ☐ EXT CERTIFICATE INSP.: ☑ YES ☐ NO NEXT RULE 507 DUE:* 2009 DATE RULE 507 COMPLIED: 07/01/2001

OWNER/USER
Abt Co
416 Ford Ave
Alpena, MI 49707-2346

LOCATION
Decorative Panels International
416 Ford Ave

Alpena, MI 49707-2346

RULE 27 COMPLIED: ☐ YES ☐ NO ☑ N/A
NATURE OF BUSINESS: Manufacture
SPECIFIC LOCATION: * Pwr Hse
BOILER LOCATION COUNTY: Alpena

USE: * Power
CONSTRUCTION: * Welded
TYPE: * Water Tube

MANUFACTURER: * Babcock & Wilcox
YEAR BUILT:* 1956
YEAR INSTALLED: * 1957

FUEL:* Coal
METHOD OF FIRING:* Stoker

PRESSURE GAGE: * Y
TESTED: * ☐ YES ☑ NO

LOW WATER CUT OFF: * Float and Chamber
TESTED: * ☐ YES ☑ NO

507 HYDRO TEST: ☐ YES ☑ NO MANHOLE: * Y
_____ PSI

PRESSURE ALLOWED
THIS INSPECTION: * 925
PREVIOUS INSPECTION: 925

SAFETY VALVE SET AT: * 925
HAS THE VALVE BEEN TESTED: ☐ YES ☑ NO

BTU/HR INPUT: 89108

POWER BOILER HEATING SURFACE: * 14469
MIN. REQUIRED SAFETY VALVE RELIEVING CAPACITY BASED ON:* BTU Input
TOTAL CAP. OF SAFETY VALVES: * 177166

MIN. S. V. RE. CAP. REQUIRED: * 89108
IS CAPACITY ADEQUATE: * ☑ YES ☐ NO

CERTIFICATE POSTED: ☑ YES ☐ NO
IS CONDITION OF BOILER SUCH THAT A CERTIFICATE MAY BE ISSUED: * ☑ YES ☐ NO (explain fully under condition)

CERTIFICATE DUE DATE: 10/18/2008

CONDITIONS OF BOILER: (attach additional sheet, if necessary)
The boiler was inspected with no adverse conditions noted.

REQUIREMENTS - OWNER/USER MUST COMPLY WITH THESE REQUIREMENTS: (attach additional sheet, if necessary)

NAME AND TITLE OF PERSON TO WHOM REQUIREMENTS WERE EXPLAINED:
Len Werda

REQUIREMENTS FOLLOW UP DATE:

VIOLATIONS ISSUED	ORDER NO.	COMPLIANCE DATE
☐ YES ☑ NO		

I HEREBY CERTIFY THIS IS A TRUE REPORT OF MY INSPECTION.

SIGNATURE OF INSPECTOR: John Simons LICENSE NO. MI 300453 COMPANY NO. 544
John Simons

NATIONAL BOARD COMMISSION NUMBER: 12665

LAST INSPECTED BY

INSPECTOR: John Simons
EMPLOYER: Zurich American Insurance Co

LICENSE NO.: MI 300453
COMPANY NO.: 544

MAIL CODE: 3
MC1 = INVOICE TO O/U, CERT TO LOCATION
MC2 = INVOICE TO LOCATION, CERT TO O/U
MC3 = INVOICE & CERT TO O/U
MC4 = INVOICE & CERT TO LOCATION

REINSPECTION REPORT - ALL BOILERS

Michigan Department of Labor & Economic Growth
Bureau of Construction Codes
Boiler Division
P.O. Box 30254, Lansing MI 48909
(517) 241-9334

Authority: 1965 PA 290

OUTSTANDING BALANCE:
INVOICE NUMBER:

DATE INSPECTED:* 10/19/2007 OWNER OR BATTERY NO.: BOILER NO.:* MIR032732 OTHER NO.: 59640

KIND OF INSP.: ☑ INT ☐ EXT CERTIFICATE INSP.: ☑ YES ☐ NO NEXT RULE 507 DUE:* 2009 DATE RULE 507 COMPLIED: 07/01/2001

OWNER/USER
Abt Co
416 Ford Ave
Alpena, MI 49707-2346

LOCATION
Decorative Panels International
416 Ford Ave

Alpena, MI 49707-2346

RULE 27 COMPLIED: ☐ YES ☐ NO ☑ N/A
NATURE OF BUSINESS: Manufacture
SPECIFIC LOCATION: * Pwr Hse
BOILER LOCATION COUNTY: Alpena

USE: * Power
CONSTRUCTION: * Welded
TYPE: * Water Tube

MANUFACTURER: * Wickes
YEAR BUILT:* 1938
YEAR INSTALLED: * 1961

FUEL:* Gas
METHOD OF FIRING:* Stoker

PRESSURE GAGE: * Y
TESTED: * ☐ YES ☑ NO

LOW WATER CUT OFF: * Float and Chamber
TESTED: * ☐ YES ☑ NO

507 HYDRO TEST: ☐ YES ☑ NO MANHOLE: * Y
_____ PSI

PRESSURE ALLOWED
THIS INSPECTION: * 475
PREVIOUS INSPECTION: 475

SAFETY VALVE SET AT: * 355
HAS THE VALVE BEEN TESTED: ☐ YES ☑ NO

BTU/HR INPUT: 77662000

POWER BOILER HEATING SURFACE: * 7411
MIN. REQUIRED SAFETY VALVE RELIEVING CAPACITY BASED ON:* BTU Input
TOTAL CAP. OF SAFETY VALVES:* 81251

MIN. S. V. RE. CAP. REQUIRED: * 77662
IS CAPACITY ADEQUATE: * ☑ YES ☐ NO

CERTIFICATE POSTED: ☑ YES ☐ NO
IS CONDITION OF BOILER SUCH THAT A CERTIFICATE MAY BE ISSUED: * ☑ YES ☐ NO (explain fully under condition)

CERTIFICATE DUE DATE: 10/19/2008

CONDITIONS OF BOILER: (attach additional sheet, if necessary)
No adverse conditions noted.

REQUIREMENTS - OWNER/USER MUST COMPLY WITH THESE REQUIREMENTS: (attach additional sheet, if necessary)

NAME AND TITLE OF PERSON TO WHOM REQUIREMENTS WERE EXPLAINED:
Len Werda

REQUIREMENTS FOLLOW UP DATE:

VIOLATIONS ISSUED	ORDER NO.	COMPLIANCE DATE
☐ YES ☑ NO		

I HEREBY CERTIFY THIS IS A TRUE REPORT OF MY INSPECTION.

SIGNATURE OF INSPECTOR: John Simons LICENSE NO. MI 300453 COMPANY NO. 544
John Simons

NATIONAL BOARD COMMISSION NUMBER: 12665

LAST INSPECTED BY

INSPECTOR: John Simons
EMPLOYER: Zurich American Insurance Co

LICENSE NO.: MI 300453
COMPANY NO.: 544

MAIL CODE: 3
MC1 = INVOICE TO O/U, CERT TO LOCATION
MC2 = INVOICE TO LOCATION, CERT TO O/U
MC3 = INVOICE & CERT TO O/U
MC4 = INVOICE & CERT TO LOCATION

GE Infrastructure
Water & Process Technologies

Jeff Baldwin
Account Representative

GE Infrastructure
Water & Process Technologies
4636 Somerton Road
Trevose, Pa 19053
989 430 5849 Cell
866 439 8272 Customer Support Center
jeffreys.baldwin@ge.com

October 19, 2007

Mr. Len Werda
Decorative Panels International
416 Ford Ave.
Alpena, MI

Subject: Boiler System Outage Inspections

On the above date, inspections were performed on the boiler systems. Jeff Baldwin and Milot Resyli of GE W&PT per formed boroscope inspections. Sven Svantesson had also inspected the boilers the previous day.

GE W&PT overall impression was that boilers #1 & #2 internal cleanliness was similar to previous outage inspection conducted in May 2006. Boilers #1 and #2 continue to have higher deposit accumulations than boiler #3. Both 900 psig boilers continue to have scale approximated at 1/16" in both steam and mud drums. Operators observed that no very little accumulations were required to be vacuumed from the steam drums as with previous openings.

We did not observe evidence of oxygen pitting in any boiler steam drums, and did not observe the amount of loose chip scale in tubes as previous inspections. Operations have been maintaining higher sulfite (oxygen scavenger) and polymer dispersant levels (OptiSperse AP0520, MoO4 testing), with this positive impact maintaining the higher levels should continue.

As you may recall during the May 2006 outage we had to dry rod 3 tubes in boiler #2 to remove chip scale, this year only one tube was located in #1 boiler that required this removal. Note that blockage can impede water flow, and risk the potential for tube overheat and failure.

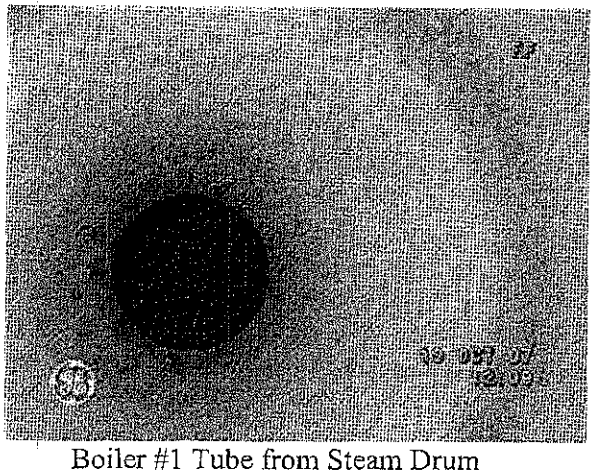
Boiler #3 maintains excellent internal cleanliness. Operations had to replace feedwater piping which became dislodged, which resulted in short circuiting the feedwater distribution channel. This seemed to have no adverse impact on internal cleanliness. The large tube diameter and lower pressure (300 psig) is more tolerant and less prone to deposition from feedwater contaminant upsets. No internal cleaning was considered necessary.

Boiler #1

As with previous inspections, a smooth light gray coating was observed in the steam drum boiler internals. No evidence of oxygen pitting or corrosion was present. The water line was fairly smooth indicating good level control at the 50% drum level. Last year I noted slight elongation along feedwater holes, this year I observed fibrous material along the feedwater line. I suspect a minor contamination occurred from COE dryer trenches earlier this year, while worth noting not considered significantly detrimental.

Noted the # 2 and #4 etched on steam separator cans, these marks were etched in 2002 and 2004, Sven left his signature by sketching # 7 for 2007. Overall this suggest the total deposit accumulation in the steam drum area to be nominal.

Mud Drum inspections did appear to contain lesser amounts of deposition than previous inspections. Previous inspections noted about 5% of tubes contained partial blockage from chip scale. Today's inspection found only one tube with partial blockage, a sample was obtained for analysis.



Boiler #1 Tube from Steam Drum

Fireside

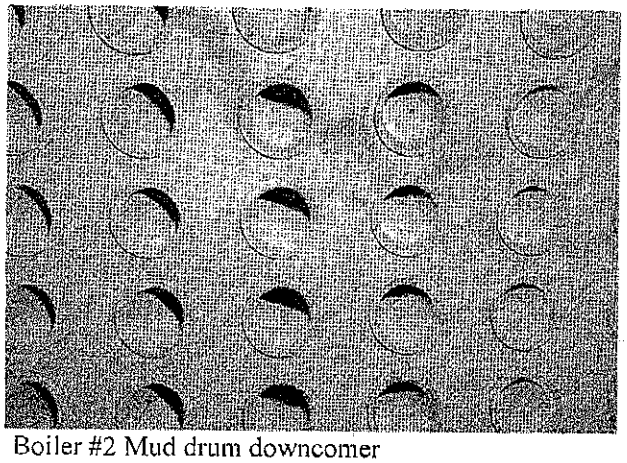
Inspections were performed on the firebox, and economizer sections. Did not observe any evidence of tube blistering or pimple that would indicate localized overheating. This inspection followed high pressure water wash cleanings of the furnace.

Boiler #2

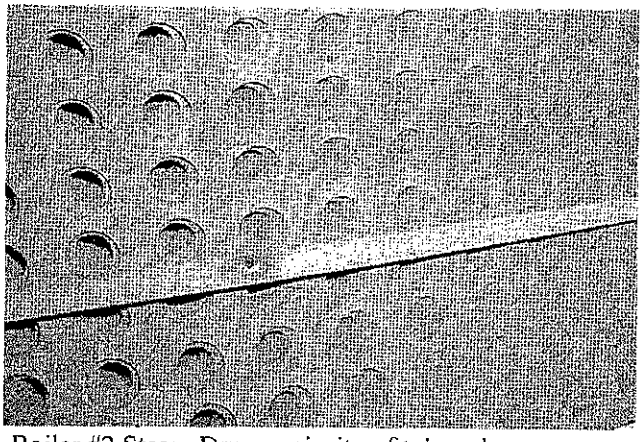
Again we observed similar light gray coating within the steam drum of #2 boiler. Water line appeared to be in proper ½ drum level position. Steam screens and separators were noted in good condition. We observed the # 4 was etched on one steam separator can, indicating little deposition accumulation over past 31/2 years. Also observed no evidence of O2 corrosion. Did note light accumulations of iron type deposits around feedwater line holes, which is not

considered significant. Internals of the feedwater line was in good condition, as well as chemical feed line and blowdown lines.

A majority of the tubes (>95%) were clean and free of debris. Did note a few tubes beneath the initial feedwater inlet to have heavier accumulations. Boroscope inspections found these tube deposits to clear further into the tube. We also observed light accumulations around tube throats as enter into the mud drum. We did not observe extensive signs of steam blanketing of poor circulation. We did not observe the partial tube blockage in #2 boiler as we had observed in #1 Boiler.



Boiler #2 Mud drum downcomer



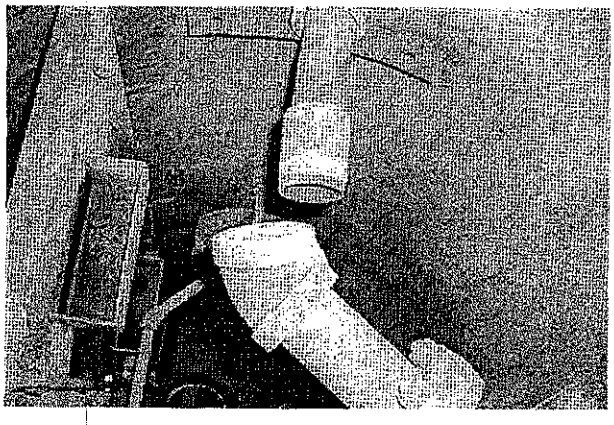
Boiler #2 Steam Drum majority of tubes clean, note PO4 feed line

Fireside

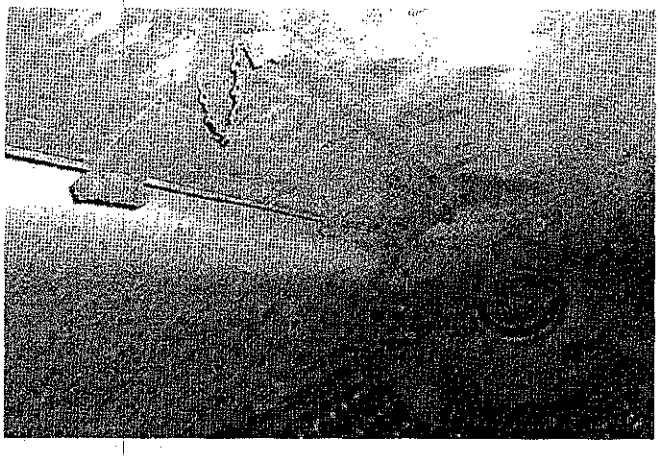
Close inspection of both boilers lower water headers along stoker grates was made. Evidence of bulges and pimples in these areas are early warnings of overheat failures from deposits. Tube replacement along the east wall had been made earlier this year, plus I noted 6 pad welds to have been added to the west wall. Operations noted that historically these areas were prone to erosion.

Boiler #3

Inspections of crossover steam drum and the mud drum found extremely good cleanliness, down to base metal. The feedwater line in the steam drum had become dislodged, this was repaired, with no apparent internal damage to tubes or excessive accumulations.

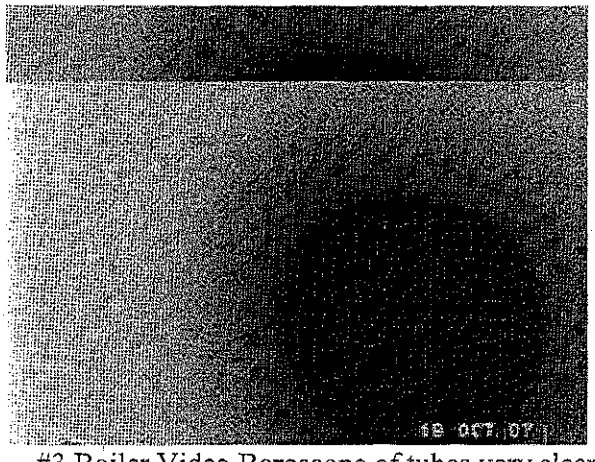


Boiler #3 maintains a greater magnetite (black iron oxide) layer than the high-pressure boilers. I continue to note red iron oxide in the feedwater steam drum particularly along the feedwater tray. This suggests some oxygen intrusion (possibly during storage) however extensive pitting was not observed. Internal cleanliness was considered quite acceptable. Again, no evidence of O2 corrosion was apparent in the crossover steam drum and mud drum. Water levels at the main steam drum were at appropriate 50% level, however levels in the crossover steam drum were noticeably higher....slightly above the manhole cover. This has been observed in the past. *Recommend reviewing original specifications for proper control of water levels.*



Higher water levels in cross-over (front) drum

Video boroscope inspections found extremely clean tubes from steam drum through to mud drum. Overall, the internals of boiler #3 was considered quite acceptable. No significant accumulations were observed in the mud drum of #3 boiler as compared to the higher-pressure units.



#3 Boiler Video Boroscope of tubes very clean

Water & Process Technologies

Fireside

Again I did not observe any evidence of bulges or blistering of tube on the fireside of this boiler. I did note the elevated refractory and tube coverage above grates. Operations noted this would increase the combustion of wood and yield elevated temperatures in the convective section.

A report on the outcome of the deposit analysis will be provided upon completion. GE Water & Process Technologies appreciates the opportunity to be of service. As always, should you have any additional questions or comments please feel free to contact me via e-mail or on my cell @ 989 430 5849.

Sincerely,

Jeffrey S. Baldwin
Account Manager
Cell 989 430 5849

CC: Steve Shisler, GE W&PT District Manager, Sven Svantesson

#1 Boiler Repair Asset 126001
Manufacturer B & W
Type Power
Year Built 1956
lbs/hr 80,000, S.H. Temp. 825 deg. F., S.H. Press. 900 psig.
Max. Opr. Press 975 psig
SV Press 925 psig
Heating Surface, SQ. / FT. Boiler 7,220, Water Cooled Walls 1,409
Superheater 1,270, Economizer 5,840 Total= 15,739 SQ/FT.
State # R026437
NB/MFG # 19503
All safety valves rebuilt 10/07
Date Insp. 11/5/05 external non-certificate inspection Exp. Date May 26, 2006
9-13-05 Michigan Board of Boiler Rules granted six-month extension of certificate
Boiler was inspected 5-23-06 John Simons Zurich Inspector and Jeff Baldwin G.E. Betz chemist found to be in good condition boiler certificate was issued
2/7/07 Zurich Inspector & Len Werda Did external inspection to qualify for a 6-month certificate extension.
3-19-07 Met with Michigan State boiler board in Lansing on a six month extension on boiler certificates had a verbal on that date received written notice of approval 5-23-07 to extend to no later than 11-23-07.
10-18-07 Boiler inspected John Simmons Zurich passed
6-13-08 Zurich Inspector Benjamin Lawrence & Len Werda Did external inspection to qualify for a 6-month certificate extension found no adverse conditions.

Fans

Forced Draft
Green Fuel Economizer Co., No. 33 Type 454 MC 5438 x 545 BDE F-15432 Fan, Double Inlet, Wheel MC 33", Design Point 61,000 CFM 6.85" SP
Wr 2 of fan rotor= 520 lb/ft 2, Critical speed 1170 rpm, Total Weight 2,767 lbs

ID Fan
Green Fuel Economizer Co. Green # 57MC5438x40 Double Inlet, Wheel DIA. 57" Shaft Speed Safe 970 rpm, Critical 1,170 rpm, Fan Type MC 5438, Rotor WR 2 3,000 lb/ft 2, RPM 700, 150,000 CFM EST.

Over fire 2, Buffalo Forge Co. Rating 4,600 CFM, 27.5" SP, 3,450 RPM, 30 BHP 20.75" dia. Wheel, # 35-5 CB Blower-CW Up Blast, Shop order # 565-11838

Coal Feeders
Three Detroit Roto Grate Stokers
18" Reciprocating Distributors 4,000 lbs/hr each

New Feeders
Three Detroit Under throw Air Assist Distributors
18" 8,000 lbs/hr each

ABB LNV Gas Burner
Peak Capacity 100,000 lb/hr
Sized to 65,000 lb/hr by utilizing smaller gas spud holes
Because of flame impingement on the side wall

1-11-02 12:00 am Tube leak Monarch in for repair.
1-21-02 4:05 pm Tube leak rear wall N.E. corner erosion Monarch in pad welded.
3-3-02 Boiler down to power wash, repair refractory front wall checked dust collector cones changed out 27 leaking gaskets.
2002 Outage rebuilt safety valves, Replaced #2 Stoker, Changed trim set feed water regulator,
2003 Outage replaced front arch,
4-20-03 Shift engineer did external furnace and duct check, 2nd level underside of drum needs to be resealed W.R. 200302716, door top tri cones need to be resealed, all else sat. as noted in report.
8-13-03 Shift engineer did external furnace and duct check found to be in sat. Condition as noted in report.
8-22-03 Tube leak rear wall 1st from S. Side erosion Monarch in pad welded.
2004 fall outage replaced lower section of coalbunker used stainless press cull plates, replace Sat. stm. Flow manifold & trans miter, Replace Hays boiler draft gauge
1-28-04 Shift engineer did external furnace and duct check, operating level O.F. ducts small air leaks at dampers, all else sat. as noted in report
4-18-04 Shift engineer did external furnace and duct check, 3rd level pent house roof leak top corner issued W.R. 200402746 for repair, operating level O.F. ducts small air leaks at dampers, all else sat. as noted in report.
7-18-04 Shift engineer did external furnace and duct check found to be in sat. Condition as noted in report.
8-6-04 Recalibrated O2 monitor reading start 12.9% end 12.9%
TG 1 reading 8.1% TG 2 reading .5% passed
10-23-04 Shift engineer did external furnace and duct check found to be in sat. Condition as noted in report.
2-17-05 Recalibrated O2 monitor reading start 7.4% end 7.6%
TG 1 reading 8.2% TG 2 reading .5% passed
4-23-05 Shift engineer did external furnace and duct check found to be in sat. Condition as noted in report.
5-10-05 Recalibrated O2 monitor reading start 6.3% end 7.4%
TG 1 reading 7.9% TG 2 reading .4% passed
7-24-05 Shift engineer did external furnace and duct check operating level I.D. fan casing expansion joint split in seam W.R. 200504919 submitte4d 7-5-05 for repair all else found to be in sat. Condition as noted in report.
10-11-05 Industrial Fire Brick in to repair refractory front & rear wall.
11-3-05 Recalibrated O2 monitor reading start 8.4% end 8.5%
TG 1 reading 7.9% TG 2 reading .7% passed
12-12 -05 Relocate bark feed chute

12-17-05 7:30 pm blew generating tube rear wall12-18-05 Monarch welding cut off plug openings stm. & Mud drum Tube showed to be an ash erosion problem had Refractory damage north & south wall also pent house roof Industrial fire brick in to make repairs.4:45 pm 12-18-05 Hydro boiler ok no leakers.
Gave mill ok to go to full production 8:10 am 12-20-05.
12-18-05 Replaced F.D. fan motor original motor 710 rpm change to 885 rpm
12-27-05 Northern A-1 Power washed boiler complete
12-28-05 Blue encapsulated steam and mud drum man ways
1-7-06 Blew down transmitters
1-7-06 Shift engineer did external furnace and duct check, 3rd level pent house roof raise from tube failure no leaks where insulation installed, 2nd level casing on N. & S. walls bowed from tube failure I.D. fan expansion joint some air leaks N. Side, operating level some insulation and brick loose N. back wall, basement level bottom ash hopper door has crack, F.D. fan outboard bearing has little thump in it. All else in sat. Condition as noted in report.
1-16-06 Replaced Sat. steam flow high side signal line had problems with transmitter till all air was bled off.
2-2-06 Recalibrated O2 monitor passed O2 reading start 10.1% End 10.5%
TG 1 Reading 8.1% TG 2 Reading .5%
2-6-06 Replaced F.D. fan motor with original 710 rpm, PM stoker line shafts & #1 stoker clutch, Hook up second purple peeper & remove jumper wire from control, PM stoke line shafts and clutches. Inspected fire box, front arch is getting worse gas burner rings are in need of repair area gunited from blown tube 12-17-05 needs some touchup. Took pictures of all areas.
2/27/06 Power washed boiler complete large build up from E-Lab sludge it appears over firing of sludge burning in the first pass causing a hard buildup. Found the front arch and gas burner throats getting in bad shape made temporary repair to both. Welded on 2nd south side vent ¾" SW F-22 T-pattern stop. Cleaned purple peeper flame scanners and gas burner spuds.
3-21-06 Tony Regan Shift Engineer candled fly as hopper and checked flopper valves for leaks found none.
4-20-06 Lost bark feed to boiler plug up alarm and switches not working busted flights off screws work requests in on switches and alarms since 2-15-06, 3-27-06 issued memo
5-16-06 Replaced 3 bad live bottom screws bark bin started feeding bark to 1&3 boiler plug up switches working again.
5-22-06 Inspected internal stokers and gas burners found to be in good condition
5-22-06 Changed out 27 leaking cone gaskets used all old gaskets and one new.
5-22-06 Boiler outage Shadd Boiler replaced both burner tile, rebuilt front arch patched holes in refractory
5-23-06 Monarch boiler pad welded tubes ten tubes north wall
5-23-06 Zurich Inspector John Simons GE Betz Jeff Baldwin Inspected boilers found very clean no apparent problems.
6-27-06 & 6-28-06 MDEQ and NTH Consultants, Ltd. Ran stack tests for bark burn and reference information for MACT.
6-29-06 Changed out #3 stoker rotor assembly lost both rear bearings.

7-25-06 Shift engineer did external furnace and duct check,2nd level casing in need of repair packed small leaks with K-wool, all else found to be in sat. Condition as noted in report.
9-5-06 Replaced S. center grate counter weight, Checked S.H. and first pass very littlie plug age since may boiler outage wash co-mate down to 150 # day.
10-15-06 Shift engineer did external furnace and duct check,2nd level casing in need of repair, all else found to be in sat. Condition as noted in report.
10-24-06 Recalibrated O-2 Analyzer Passed
11-18-06 Started grate rebuild Jack Osgood Engineer S&A contractor, new total rebuild except for grates all else new Schad boiler in replacing front brick work and front insulation. Finish 11-22-06.
11-25-06 Hand slagged the first pass a lot of buildup about 70% plug

SERVICE REPORT

Written By
J.H. Osgood

For
Leonard D Werda
Power Plant Superintendent
Decorative Panels International
416 Ford Avenue
Alpena, Michigan 49707

Customer P.O. No 200602528 **Week Ending:** November 25, 2006

INTRODUCTION: DPI issued me a PO to assist them with the rebuild of their unit #1 DSC RotoGrate stoker. Len contacted me requesting I come to the site, on 11-8-06, for a pre outage meeting with their contractor (S & A Co, Inc) to discuss the equipment and personnel requirements.

On 11-8-06 I traveled from Monroe, Mi to Alpena and arrived on site at 10:30am. Present at this meeting for DPI were Mr.'s Leonard Werda, Dan Fulker & Mike Kramer : present for S & A were Mr's Steve Gohl & Gene Hochrein: and myself. We discussed the required equipment: wrenches, screwdrivers, etc., crew: minimum of five men and a foreman:: planking to stage the plenum hopper: the boiler was coming out of service at 11:00pm on 11-17-06: don't hydro wash the boiler: crew can **mobilize** on the 17th: plant will run ash off the grate: work is scheduled to start at 7:00am on the 18th: 1st thing to do is stage the plenum and remove the stoker front panels. We went to the warehouse and looked over the new stoker parts. I left the site at 12:00pm and returned to Monroe.

On 11-17-06 I traveled from Monroe to Alpena. While in route to Alpena I received a cell call from Len advising that the contractor had mobilize, was ready to start tomorrow and had left the site. Confirmed that I would be on site at 7:00am the next day.

INSPECTION REPAIR: The following is an itemized list of the stoker grate systems indicating the condition observed, what was done to correct any deficiency and what should be planned for the 2007 outage.

Item #1: Grate frame. No visible defects: no work done and none should be required in 2007.

Item #2: Front slide rail system. These rails were well warn and scheduled to be replaced. After the lower front air seal plates were removed we found that all rails had holes warn into the width of the lower end. All new rails were installed using strands of ceramic rope and furnace cement to seal all joints. No work will be required in 2007.

Item #3: Rear slide rail system. This system is in fair condition with moderate wear. The adjusting mechanism has been removed and the rails are resting on the rear cross beam (I had this done when I was still with DSC). There are several other companies that make a catenary traveling grate stoker and none of them employs a rear slide rail system. These rails serve no useful function.

The trend today is to leave the rails as they are and install a new 180deg segment of schedule 80 10" pipe 12"lg at the center of each grate section. These pieces of pipe are welded to the top of the front channel of the rear bearing support steel. The function of these pipe segments is to close the grate bars, in the area of the bearing stand, so they do not wear down the lower flange.

My suggestion is to have these pipe segments made in your shop or a local shop in install them in 2007.

Item #4: Front shaft system. This system was scheduled for replacement of the 8T sprockets and the bearing caps. When the sprockets were removed the shaft to bearing wear gaps were exposed and the wear gaps were measured. From left to right the wear gaps are: #1is 3/32", #2 is 11/23", #3 is 1/8" and #4 is 5/32". Prior to removing the bearing caps I checked the shaft level with a Starrit 89 shaft level and the shaft is about 5/32" high at the #4 bearing and this is only 1/32" over DSC's standard tolerance. After the caps were removed I checked the shaft journal wear with a straight edge and feeler gage. The wear at #1 journal is -.035", #2 is -.035", #3 is -.030 and #4 is -.015". It is normal that most of the wear occurs at the rear journal area of the cast iron bearing stand. All journal areas of the shaft were ring grooved but there is no galling. If all bearings are kept grease the shaft will last for years.

There was very little semi-hard grease in the journal area of the all of the caps (refer to item #19).
All sprockets had wear on both faces of the teeth.

We took the load off of the shaft and cleaned out the grease grooves in the bearing stands prior to installing all new 8T sprockets and bearing caps. I observed fresh grease at all bearings.

The existing 8T sprockets were cupped at the root of all teeth and on both faces. All new sprockets (DSC's Austemper Ductile Iron) were ordered and installed. No work will be required in 2007.

Item #5: Rear shaft system. This system was in good condition and was scheduled to replace the idler sprockets and the bearing caps. All of the idler sprockets had some semi-hard grease. After the idlers were removed from the shafts and an inspection of the journals revealed that the contact surfaces were all polished with a maximum of 1/64" wear. We installed all new idler sprockets and two new intermediate bearing caps (the side caps replacements were not on the 2005 inspection ordered). I observed fresh grease at all idler sprockets. No work should be required in 2007.

Item #6: Top support rail system. The skid surface of these rails had moderate wear but the vertical heat sink rib were badly burnt down and they were scheduled to be replaced this outage. All new rails were installed. The side cavity of the rails in the area of the upper front seal plates and the rear coking seal plates were packed with ceramic blanket (refer to items item #8 and #9). No work should be required in 2007.

Item #7: Grate bar end seal system. These seals are in fair to good condition. They were removed to access the replacement of the lower front slide rails. The seal between the 2nd & 3rd sections had only one pin/spring. We reinstalled all of the existing castings, springs & pin (Len got us a new spring and material to make a new pin for the missing set). All new ceramic rope was used to pack each seal. No work will be required in 2007.

Note: when the front slide rails are replaced (refer to item #2) it is automatic to replace the bar end seal castings due to the extensive work required to replace these seals: these were not on the 2005 inspection list.

Item #8: Lower front seal system. All of these seals are in good condition but were a jam fit requiring a come-a- long to remove. I had about 1/16" ground off of both side edges of all seal plates. After the seal plates were reinstalled I had them seal the upper retainer angle area with a doubled over sheet of 2" ceramic blanker for 100% of the grate width.

Item #9: Rear coking seal system. The seal system in all three sections were in fair to poor condition. The coking plates are in fair condition. The weight systems were in poor condition with the weight arms seized by rust and no packing at the adjacent rail cavities (refer to item #6). The 2005 inspection parts list did not include these plates.
The plates were removed to access the rear shaft area. The wear surface is in fair to moderate condition. We installed

All new fulcrums and weight arms and reused the existing weights as weights nor the fulcrum support not on the inspection parts list. The top support rail cavity adjacent to the coking seal plates were packed with pieces of ceramic blanket. No work should be required for the next couple of years.

Item #10: Lower front guide system. These guide casting were all excessively warn on the top surface adjacent to the bearing. When replacing the lower front rails (refer to item #2) these guides should be replaced as the match wear to the rails: they were not on the 2005 inspection list. After installing the new front rails all of the existing castings were reinstalled. They will be OK until next year. They should be scheduled for replacement in 2007. Need three each of lower front guide part No U4492CR & U4492CL.

Item #11: Upper front seal system. These seals are basically in the same condition as the rear coking seals (refer to item #9). The existing lower seal weights and arms were not replaced. The existing fulcrum supports were not replaced but we installed new fulcrums and arms with the existing weight moved back 5" from the end of the arm. The cavity in the adjacent top support rails were packed with pieces of ceramic blanker. No work should be required for a couple of years.

Item #12: Grate chains. The existing chain were scheduled to be replaced during this outage. New DSC cast steel chains were installed. No work should be required for the next ten years or so at which time they should be turned over. **Note:** when these new chains wear in it may be necessary to remove a link from each chain (2007 ?).

Item #13: Grate bars. The existing bars are in very good condition and were removed only to replace the chains. These are DSC ductile iron bars. All were reinstalled. No work should be required for several years.

Item #14: Grate bar/chain connections. I inspected every connection and all are correct. All connections should be inspected annually.

Item #15: Rear tuyere system. All of the existing tuyeres were severely heat damaged and scheduled for replacement. One tuyere support was broken and we replaced it with a new one and sealed it with furnace cement.
All new ductile iron tuyeres were installed and should be good for a year or two.

Note: the current tuyeres are DSC's P/N DU-4882 which are good for temperatures up to 750deg F. The next order of these should specify P/N TSU-4882 which are an alloy that can stand 1200deg F.

Item #16: Upper front guide system. These were in fair condition and scheduled to be replaced this outage. All new guide assemblies were installed. No work should be required in 2007.

Item #17: Grate thermocouple system. There are no thermocouples on this stoker.

Item #18: Grate drive system. This is a mechanical drive on the RH side. I checked the grate shaft bearings, the outboard bearing bracket system and the gear case output shaft sleeve bearings and all are very good. No work done

Item #19: Lubricating system. This is a manual system with 1/4" standard pipe lines. I was told that they grease the grate shaft bearings and idler sprockets once a week. There was not a sign of grease at either side of any of the front bearings but the rear idlers had some old grease showing (refer to items # 4 & 5). The grease they are supposed to be using, on the front and rear shafts, is Chevrons Rachitic EP which is extreme pressure grease and is bright red in color. Per the Chevron salesman this is a paraffin base grease. The salesman was trying to sell Len on changing to a synthetic grease with the same qualities. Told Len that if he did that we would have to purge all lines of grease we were using. Len elected to stay with the existing EP grease. When we started to check each lube point for receiving grease we found that all lines were all filled with a olive-drab color grease. I was unable to locate any grease of this color. I discussed this lubricating situation with Len. He is going to implement a new lubrication schedule that will be per DSC's standard for the RotoGrate stoker: four strokes of ACTUAL grease DELIVERY every eight hours.

Item #20: Front seal system. The only area we got involved with was the area where the extension front side plate joins with the lower front end plates. I assisted the refractory man the bricking and sealing this area.

Item #21: Side seal system. This item was not in the work scope but when I identified new inner seal plates they had it was decided to replace the existing seals with them. After the old seals were removed it was discovered that boiler RH side header was 4" away from the stoker at the front corner. All other corners were at about 2" away. This condition was corrected by installing a 3/8" spacer bars and welding them to the stoker frame side channel. The lower area of the RH seal was filled with ceramic blanket and the top half packed with ceramic rope. The LH side was packed with all ceramic rope.

Item #22: Rear seal system. The only work done in this area was to install ceramic blanket out to cover the rear tuyere keys and face this with about 3" of insulating cement.

Item #23: Over fire air system. This system was not part of the work scope but I looked it over and noted that there are only five lower front air jets. There is one jet each under feeders #1 & 2 and three under feeder #3. There are 10 upper front jets and the DSC standard arrangement would be 10 lower front jets. It appears that the other five lower jets were covered over with refractor (?). The group of three jets have a slage formation built up about 4" thick and a very ill-regular out let for the air flow. Both boiler/stoker units #1 & #2 have a very active fire right up tight to the front wall. I witnessed the current normal LF header air pressure at unit # 2 and it was 4.75"W.C. We varied this from 3" to 9" and saw no visible change. This leads me to believe that some of the air jets in this unit may also be covered over with refractory and or slag.

I discussed this with Len and suggested that after the outage and things get back to normal that he Contact DSC and request an operating consultant to inspect the operating condition and make recommendations to improve the efficiency of both of these units. I also suggested that, if this is done, to accept only Bob Gordon as in my opinion there is nobody in the USA that is equal to him for stoker/boiler operations. If necessary wait for him to be available.

Item #24: Cinder reinjection system. The only thing I noted on this system was that the end of the two nozzles were burnt back and should be scheduled for replacement. I observed some spare nozzles near the parts bins at the north/lower area.

Item #25: Fuel feed system. I did not inspect this system but did discuss the maintenance of the feeders. They send their warn or damaged feeders to DSC for rebuild and Len is not pleased with the extended time that is required as this leaves him without a spare incase of a feeder failure. I advised him that my associate, Hinkle Stoker Services Co, can exchange his feeders from their off the shelf warranted total rebuilt feeder. Don Hinkle can be reached by phone at 803-480-2366.

CONCLUSIONS and COMMENTS: As can be observed from the above this stoker grate system is in good condition and the only work that should be scheduled for the 2007 outage is the replacement of the lower front guides (3-each P/N U4492CR & U4492CL) which require removing only five grate bars from each grate section. The only problem is that the stoker front panels will have to be removed to have safe access to the front shaft area.
It is possible that it will be necessary to remove a link (and grate bar) from all grate chains.

Due to the operating conditions it would be a good idea to have 36 rear tuyeres (P/N TSU-48820) at site

Regards:

J.H. Osgood **Date: 11-25-06**
Service Consultant

12-26-06 Repaired front lower arch ironwork burnt up ordered twelve supports U4496A DSC to install next outage

3-20-07 Shift engineer did external furnace and duct check,2nd level casing small air leak sealed with k-wool, all else found to be in sat. Condition as noted in report.
5-26-07 Shift engineer did external furnace and duct check found to be in sat. Condition as noted in report.
6-26-07 Made weld repair to # 1 stoker upper coal chute, replaced # 1 stoker drive chain.
7-22-07 Lost gas burner 1000 psig high pressure cut out switch Ash Croft PSA 401, Cat. B4615 XFM, 15 A, 125/250 VAC, 1000 psig, Material ST. ST., S/N G40160 Dead Ban 19-82. Ordered new replacement 7-23-07.by-passed limit till get a chance to replace.
8-6-07 Outage P.H. crew washed boiler complete, Inst. Dept. changed gas burner high steam pressure cut out switch-removed jumper.
9-27-07 Recalibrated O-2 analyzer passed
10-13-07 **November boiler outage tasks** Boiler inspected passed,Washed boiler complete, Took tube thickness check found no low reading, Dust collector changed out 6 leaking cone gaskets, 3 bad cones, 9 Tri cones, P.M. stokers and line shafts, Calibrated Transmitters, installed 200 hp I.D. fan motors & new drives.
3-20-08 10:00 am developed tube leak north water wall top Chill Tube 3" x .250" Replaced section 3' from rear wall 4' long appears to be wore flat on top down to .060" in areas. Ran Hydro ok found welded in hand hole leaking S.H. inlet header welded ran hydro ok-replaced two Gas burner spuds and nipples one missing and other busted. Maint replaced 2&3 stoker drive chains and freed up 3-stoker clutch, freed up B over fire air blast gate.
3-21-08 Lit boiler off
4-9,10-08 Took tube thickness readings south water wall and chill tubes all seem to be within limits .126-.170 . Cleared firebox of clinkers. North wall 3 tubes .106 to .094, rear wall all within limits.
5-6-08 Down day slagged first gas pass furnace side checked fly ash hopper no clinkers maint. changed two stoker drive chains and PM line shafts.
5-29,30-08 Team Industrial sealed sat. stm. non-return and 2nd stop.
6-2-08 Down day Maint. PM stokers, line shafts and drives changed one universal on line shat also installed new cooling water site spinner, cleaned fire box of clinkers, slagged

first pass & S.H., washed under grate & wind box checked grate drive sprockets, counter weights, chain, grease lines all in good order, checked fly ash hopper no clinkers also top tube sheet over collector cones very little build up. Took photos of under grate.
6-11,12,13-08 Furnace & Tube in tuning boilers to lower inlet loading to ESP and opacity.

#2 Boiler Repair Asset 126101

Manufacturer B & W
Type Power
Year Built 1957
Mlbs/hr 80,000
Max. Opr. Press 975 psig
SV Press 925 psig
State # R026438
NB/MFG # 19504
Date Insp. 11/5/05 external non-certificate inspection Exp. Date May 26, 2006
9-13-05 Michigan Board of Boiler Rules granted six-month extension of certificate
Boiler was inspected 5-23-06 John Simons Zurich Inspector and Jeff Baldwin G.E. Betz chemist found to be in good condition boiler certificate was issued
2/7/07 Zurich Inspector & Len Werda Did external inspection to qualify for a 6-month certificate extension.
3-19-07 Met with Michigan State boiler board in Lansing on a six month extension on boiler certificates had a verbal on that date received written notice of approval 5-23-07 to extend to no later than 11-23-07.
10-18-07 Boiler inspected John Simons Zurich passed due 10/18/08, 16 mo. Ext. 5-18-09

ID Fan Asset 126109

Green Fuel Economizer Co. Green # 57MC5438x40 Double Inlet, Wheel DIA. 57"
Shaft Speed Safe 970 rpm, Critical 1,170 rpm, Fan Type MC 5438, Rotor WR
2 3,000 lb/ft 2, RPM 700, 150,000 CFM est.

Lube Fan: DTE HVY MED Motor: Grease
Actuator: Bailey UP20C0000, 120/240 Volt, Univ. Actuator, 450 ft/lb,
Air- 100 100 psig max, S/N 97W103358

Motor

Westinghouse, 125 hp, 440 volt, 159 amp, 60 cyc, 705 rpm, 3 phase
Frame 581-S,NEMA Design-Constant Speed, Style 16N5427, S/N 2S1 6N5427
KVA Code E, NP-59611

F.D. Fan Asset 126108

Green Fuel Economizer Co., No. 33 Type 454 MC 5438 x 545 BDE F-15432 Fan, Double Inlet, Wheel MC 33", Design Point 61,000 CFM 6.85" SP
Wr 2 of fan rotor= 520 lb/ft 2, Critical speed 1170 rpm, Total Weight 2,767 lbs
S/N 12487
Actuator: Bailey, UP20C0100, 120/240 volt, 450 ft/lb
Air- 100 psig max, S/N 97WO63639
Lube Fan: DTE HVY MED Motor: Grease

Motor

Westinghouse, 30 hp, 60 cyc, 440 volt, Amp 44.2, 710 rpm, 3 phase
Fr-445, Design-B, Code-F,S/N 97WO63639

#1 O.F. Fan Asset 126110
Over fire 2, Buffalo Forge Co. Rating 4,600 CFM, 27.5" SP, 3,450 RPM, 30 BHP
20.75" dia. Wheel, # 35-5 CB Blower-CW Up Blast, Shop order # 565-11838

Fan
35-5-CB, S/N 511838
Actuator: Bailey UP20C0000, 120/240 Volt, Univ. Actuator, 450 ft/lb,
Air- 100 100 psig max, S/N 97WO30903
Motor
General Electric, Mod 5K1364ACR2A, Type-K, Code-F, Frame 364, 30 hp
Volt 208-220/440, Cyc 60, 3 Phase, FL-Amp 7-3.6/36.8, FL Speed 3550, 40 C Rise
Continous, NO-VN 8260494

#2 O.F. Aux. Fan Asset 126111
Fan
Over fire 2, Buffalo Forge Co. Rating 4,600 CFM, 27.5" SP, 3,450 RPM, 30 BHP
20.75" dia. Wheel, # 35-5 CB Blower-CW Up Blast, Shop order # 565-11838
#35-5-CB, S/N 63P14011
Motor
Pasemaker, Mod. 2JU27258M001, Type-CJ2B, Fr 286U, 20 hp, 3540 rpm,
3 Phase, 60 cyc., S.F. 1, Ins Class-40A, Cont Duty, Front Brg. 211 KD
Shaft Ext Brg. 311 KD, Code-G, Nema design-B, Volt 208-220/440, Amp 53-50/25
Oper Inst-C517, 55 C. Rise, The Louis Allis Co.

F.G.R. Fan Asset 126125
Installed May 1991 by Cal Penn Associates built 8-24-90
Drawing #AP2 , AC4-7613, Velocity 10,000 fps
New Fan Built by Air Tech 7-30-02, P.O. 200201628
Air Tech Fan Corp, S/N 052749, Mod 365-IRO, 50 CCW 360 9, Job # 025749
Lube Fan: Grease Motor: Grease
Motor
US Electric Motors, S/N RA 865-01-121, Frame 324-T, Type-T, Design-B, Code-G
40 hp, RPM 1770, 60 HZ, 3-PH, Volt 230/460, Amp 97.2/48.6

Roots Blower Asset 128207
Universal Silencer/ Mod. # UCIY-8/ Part #53-208-AX, S/N S2010
Rotary Lube Blower, S/N 97 103774, Designation 624 JV, Roots ID 852-522-320
Lube Blower DTE EXT HVY, Motor: Grease
Motor
Marathon Electrical Motors, Mod VB-324TTF58826AU W, Type-TFS,
Design-B, Code-F, Duty-Cont, Ins Class-F, 40 hp, RPM 1760, 60 HZ, 3 PH
Volt 230/460, Amp 84/42

Radar Feeder Asset 128206
Feeder Superior Machine Co. E.S.W. Feeder, Size 20 x 20/ Job #12682 S/N S2010
Gerar Reducer
Rex Planet Gear, S/N 4ADBBR, Mod XAAA0074 Order 6830033193
RPM 1160/ RPM Out-49, Ratio 24-1, Max Tourk 1000 lbs, Serv hp .75
Lube Feeder: Reducer: EGO 80-90 Motor: Grease
Motor
Marathon Electric Motors, S/N 6497480-08/31/01, Mod BVJ184TTFS6026EY-L
Design B, Code J, Part 202,Type TFS, Frame 184-T, Ins Class F3, 3 PH, 60 HZ
RPM, 1755, Volt 230/460, Amp 12.4/6.2

Positive Displacement Blower Asset 129205
Blower

Motor
Marathon Electric/Mod. # 9VK-182TTTS6026ED-L, Frame 182-T / Type- TTS
Design-B / 3 PH / Code-K / INS Class F-4 / Continuous Duty / 3-hp / 60 Hz
Volts 230/460, Amps 8.0/4.0, R.P.M. 1760
Purger Diaphragms
20" dia. Assy # 2902400, 5" dia. Assy # 2902100
Donaldson Co. Inc.
P.O. Box 1299
Minneapolis, MN 55440
Bus: 800-365-1331, Fax 952-887-3054

Coal Feeders
Three Detroit Roto Grate Stokers
18" Reciprocating Distributors 4,000 lbs/hr each

New Feeders
Three Detroit Under throw Air Assist Distributors
18" 8,000 lbs/hr each

ABB LNV Gas Burner
Peak Capacity 100,000 lb/hr
Sized to 65,000 lb/hr by utilizing smaller gas spud holes
Because of flame impingement on the side wall

5-16-02 S.H. leak transfer line in pent house Monarch in to make repair
2002 Outage replace trim set F.W. regulator, replaced n. side and lower section of coal bunker used stainless coal bunker plates, Replaced F.G.R. fan and transition piece,
2003 Outage Rebuilt safety valves.

4-24-03 Shift engineer made external furnace and duct check all noted to be in sat. condition in report.
8-31-03 Shift engineer made external furnace and duct check, over fire air gauges D&E need to be replaced all else sat. noted in report.
2-1-04 Shift engineer made external furnace and duct check, 3rd level top economizer door needs to be resealed.2nd level all inspection doors need resealing, oper level fly ash hopper & I.D. fan duct doors need resealing, all else noted in report.
4-18-04 Shift engineer made external furnace and duct check, 3rd level pent house & top economizer door needs to be resealed.2nd level all inspection doors need resealing, oper level fly ash hopper & I.D. fan duct doors need resealing, all else noted in report.
7-1-04 Shift engineer made external furnace and duct check, 3rd level door top economizer needs resealing,2nd level all inspection doors need to be resealed, oper level fly ash hopper & I.D. fan duct doors need resealing, all else noted in report.
8-6-04 Recalibrated O2 monitor reading start 7.5% end 8.2%
2004 Fall outage replaced thimble and blast gate FGR fan, Replaced Grates chains sprockets rails,
TG 1 reading 7.1% TG 2 reading .4% passed
10-21-04 Shift engineer made external furnace and duct check, pent house roof leak issued W.O. 200407273,2nd level casing S.E. corner near gas fan leak in casing top near corner W.R. 200407273, all else noted in report.
2-17-05 Recalibrated O2 monitor reading start 7.7% end 8.0%
TG 1 reading 8.0% TG 2 reading .5% passed
4-19-05 Shift engineer made external furnace and duct check, pent house roof leak issued W.O. 200503213, oper. Level O.F. air ducts small leaks at dampers, all else noted in report.
5-10-05 Recalibrated O2 monitor reading start 8.1% end 8.6%
TG 1 reading 8.0% TG 2 reading .6% passed
7-16-05 Shift engineer made external furnace and duct check, pent house roof leak issued W.O. 200503213 4-19-05, all else noted in report.
10-17-05 5:20 am Blew generating tube 5th from N. Side Monarch cut out plugged steam & mud drum tube opening 10-18-05 5:25 am gave mill ok to go to normal production.
11-3-05 Recalibrated O2 monitor reading start 7.1% end 7.3%
TG 1 reading 8.1% TG 2 reading .5% passed
11-15-05 Blew tube S. Wall 16th from rear wall erosion Monarch cut out and installed Dutchmen.
11-16-05 Leaking tube N. Wall 20th. From rear wall erosion Monarch pad welded checked for any other tubes found none.
11/24/05 Remove large clinker from fly ash hopper maint. Welded crack in hopper.
12/27/05 Removed Mud Drum tandem blow down valve replaced after resin plug was flushed out.
12-28-05 Blue encapsulated rear water wall hand hole, steam and mud drum man ways
12-30-05 Replaced #1 fly ash dump valve & seat, #2 fly ash dump Valve
1-7-06 Blew down transmitters
P.M. gas train & electronics 1/10/06,1/24/06
1-24-06 Changed out FGR sys zurn collector flopper valve assembly UCC# 3-18206
2-2-06 Recalibrated O2 monitor passed, O2 reading Start 7.4% end 7.5%

TG 1 reading 8.1%, TG 2 .6%
2-7-06 Replaced #2 Stoker
2-7-06 Recalibrated Dust bin level indicator
3-30-06 Replaced #1 O.F. fan motor and dust radar feeder starter
4-4-06 Huron Sheet metal installed by-pass duct and damper between over fire fans.
5-1-06 Balanced #1 O.F. fan 2 mills.
5-15-06 Inspected #6 duct cyclone used visolite and black light found 24 leaking dust bag & blank seals made repairs seems to be no leaks 5-16-06.
5-22-06 Inspected internal stokers and gas burners found some issues with refractory on gas burners all else in good shape
5-22-06 Shadd Boiler repaired refractory in firebox, fly ash hopper gas burner rings
5-23-06 Changed out 29 leaking dust collector gaskets used new type gasket flex from Alpena Supply.
5-23-06 Monarch Boiler Pad welded tubes 7 north wall10 south wall, replaced 48" x 96" baffle dust collector hopper and replaced gaskets #3 leg North fly ash dump valve and transaction piece to hopper. Replaced access door on stack, changed both drum vents.
5-23-06 Zurich Inspector John Simons GE Betz Jeff Baldwin Inspected boiler found very clean no apparent problems.
7-9-06 Maint changed dust sys. rotary seal valve.
8-1-06 Shift engineer made external furnace and duct check all else noted in report.
8-3-06 Changed 5" purger diaphragm
9-5-06 Replaced #1 stoker
10-15-06 Shift engineer made external furnace and duct check 2nd level casing crack along seam N. wall sealed with high temp caulk, all else noted in report.
10-24-06 Recalibrated O-2 Analyzer Passed
10-25-06 Replaced drive 4 belts FGR fan CX – 75
10-30-06 Removed flue gas recirculation blanks & installed chutes every other one from each register eight each total of 16 in each register. S& A Co. hooking up new e-lab off gas burn line to gas burner recirculation ducts.
10-31-06 P.M. gas train cleaned purple peepers.
11-1-06 12:30 A.M. found leaking tube 17th from front 6" up over chill tube south wall, Monarch Welding pad welded ran hydro 600 psig found 16th tube from front leaking pad welded ran hydro 700 psig all ok. Pad welded 15th & 16th tube south wall checked found below .070 new .135 checked other tubes in area found satisfactory.
11-17-06 Finished installation of duct work and started burning E-lab sludge dryer off gas threw gas burner flue gas recirculation chutes
12-26-06 Removed large clinkers under gas burners seems to be caused by the e-lab off gas moisture getting threw the burner chutes.
1-22-07 P.M. Stoker and grate drive line shafts.
2-4-07 Found leaking generating tube cold side above mud drum between 20 & 21 second row in 36" from top of mud drum appears to be erosion. Washed First pass.
2-5-07 Monarch Welding in to make repair to leaking generating tube hydro to 600 psig ok no leaks
2-5-07 Replaced main O.F. fan motor balanced fan blade.

2/28/07 8:00 am Blew south water wall tube #18 from front wall cut out and replaced 4'x 2 ½" 0.135 section off header, checked tube thickness in the area six tubes each side found #14 .99 & .82, #19 .72 & 85, #23 .85, #24 .90, also some low areas on chill tube Pad welded all ran hydro 700 psig found one weeper repaired ran another hydro 700 psig no leakers found water coming down from rear wall found same tube repaired 2-4-07 leaking above pad weld tube reddish discolored as it overheated and lost its carbon plugged steam and mud drum did away with the tube, Found debris in tube to plug and over heat appears to be from a incident we had 2001 with the Chemco chemical company injecting a kelant into the economizer and causing 8 tubes to plug we did bore scopes since than and did see some blockage very little less than 1/8" appears to have let go because of the cycling of the boilers the last few months and running the boiler over 90 mlbs/hr.
3-2-07 Lost 30 hp, 710 rpm F.D. fan motor apparently had gotten water in it when tube blew installed stand by motor 30 hp 885 rpm sent out original for rebuild.
3-21-07 Shift engineer made external furnace and duct check all else noted in report.
4-2-07 Installed rebuilt original 710 rpm FD fan motor.
4-11-07 Lost stoker drive jackshaft replaced with spare rebuilt.
4-30-07 10:50 am tube leak weeper south wall 15th. Tube from front
5-1-07 Monarch welding on site to make repair also found on same wall 13th & 14th tube from front had low readings .070 should be new .135 pad welded ran first hydro 500 psig found small weeper repaired ran second hydro 700 psig no leaks.
5-2-07 Replaced N. fly ash hopper ash line tee.
5-28-07 Shift engineer made external furnace and duct check all else noted in report.
6-12-07 Repaired refractory front wall near #3 stoker also cleared O.F. air nozzles rear wall gas burner tiles showing signs of needed repair at boiler outage.
6-26-07 Made weld repair to # 2 stoker coal upper chute.
6-30-07 7:00 P.M. started shearing grate drive pins

SERVICE REPORT

Written By
J.H. Osgood

For
Len Werda
Power Plant Superintendent
Decorative Panels International
416 Ford Ave
Alpena, Michigan 49707

Customer P.O. No 200701389 **Week Ending:** July 7, 2007

INTRODUCTION: At about 1:00am on Sunday, July 1, 2007 I received a call from Len Werda advising that their unit #2 RotoGrate stoker was jammed and after taking the unit out of service they were not able to locate the source of the jam. Len requested I come to the site ASAP to assist with correction work. I advised him that I would be at their plant at about 8:00 or 8:30am and would stay as long as necessary.

I left Monroe, Mi on 7-1-07 at 4:00am and arrived on site at 8:30am.

INSPECTION REPAIR: The condition of the grate surface indicated that the jam was in the first section (LH side) and the inspection of the catenary area revealed nothing in any section and this with the grate surface condition was a strong indication that the jam was in the area behind the front shaft of the first section.

I had the crew cut out three grate bars in the 1st section at the front shaft to access the area. This revealed nothing so had them remove three bars from the 2nd section also and still nothing.

I had them install a ladder in the plenum hopper and inspected the lower area of the rear shaft system. This area is not assessable and difficult to get a view due to blast gate and recirculating flue gas dampers. I was finally able to locate a grate bar in the 1st section that one end had came off of the chain and was jammed between the chain and the LH bearing stand bottom flange.

This area is the least assessable of the entire grate system. To confirm the condition and possibly clear the jam it was necessary to cut two openings in the side rear corner of the frame. We were not able to remover the jam. A third opening was cut in the rear 15" channel and the jammed grate bar was removed.

During the rigging process in the attempt to clear the jam it was discovered that the cotter pins that retain the keepers that lock the grate bars to the chains were very brittle. The tangs and eyes of the pins easily broke off when trying to remove them.

I also noted that at some off the grate bar/chain connections the shoulder of the chain pins were out of the retaining pocket of the chain links. There appears to be an inconsistency in the grate bar chain cavity. This could be either the cavity is too wide and or the pocket for the pin end is too wide.

Either one or a combination of the above conditions was the direct cause of the grate jam.

During the reassembly of the grate I found that the grate bar adjacent to the bar that jammed was bent and it was replaced. The bar that was jammed was not damaged and was reinstalled.

I inspected every grate bar/chain connection and found about six randomly located connections that had defective cotter pins and one that the cotter pin was missing. These defective connection were all a potential jam.

I have never ran into the a situation like this with the cotter pins and can only speculate that they are of an inferior quality or the remote possibility that the recirculating flue gas is some how involved.

My strong recommendation is that at the earliest possible time all of the cotter pins be replaced with 3/16" x 1"lg premium quality SS pins. While this is being done all grate bar/chain connection must be checked to assure the chain pin shoulder can not come out of the link pocket and or that the link pins bottom out in the bar pocket before the flat washer comes into contact with the cotter pins. It will probably take a three man crew at least four 12 hour shifts to do this correctly (they will have to devise a tool and or an efficient system to do this).

Your maintenance personnel did a good job under stressful conditions and I believe they learned a great deal from this incident.

I left the site at 7:00pm on 7-2-07 and arrived in Monroe, Mi at 11:30pm.

Regards:

J.H. Osgood
Service Consultant

Date: 7-9-07

DPI Alpena Power Plant

Len Werda
6/20/2008

7-29-07 1:51 am developed tube leak south water wall 12th tube from front 4" above chill tube had been pad welded in that area before also found 13th. Tube from front thin .050 pad welded also all others in that area .110 and above inspected gas burners west burner refractory and brick work in bad shape also some bad areas front wall south lower the worst. First Hydro 650 psig weeper drained wall repaired 2nd Hydro 700 psig ok. Took pictures for CD of inside boiler and tube repair.
8-5-07 Outage Monarch welding in replacing 37 south water wall tubes above header 2 ½"x .150 x 4' tubes were .130 also both south wall chill tubes 3" x .250.tubes were .180 B&W manual shows chill tubes 4" they are 3"?
8-6-07 Monarch continuing tube replacement Shad boiler due in 7:00 pm to repair gas burner throats and furnace refractory.
8-7-07 Monarch finished tube replacement hydro to 740 psig no leakers. Shad boiler finished refractory south wall.
8-8-07 Changed grate drive small chain.
9-26-07 Recalibrated O-2 analyzer passed
10-13-07 **November boiler outage tasks**, Boiler inspected passed, Washed boiler complete, Pad welded 5 North wall tubes in combustion zone 13,14,15,17,19 ran hydro 600 psig no leakers, Dust collector changed 19 leaking seal gaskets, 1 cone, 1 tri-cone, replaced gas burner combustion air motor, fan wheel & actuator, Calibrated transmitters, Installed 200 hp I.D. fan motors and drives
12-9-07 Lost boiler gas combustion air blower found I/P bad getting fail low limit switch code 45 on Honeywell management control
12-9-07 Tube leak north wall 19 th. From front 12" over chill tube Monarch in to repair found thin area near chill tube. Had small leak on 18th. Tube from front north wall same area seems to be abrasion on both tubes ran hydro to 600 p.s.i.g. 9:00 P.M. North mud drum man way gasket started leaking changed out gasket appears man way hinge is sprung had to hammer man way into position.
12-10-07 Blew tube in economizer bottom bank 2nd row up 14th tube from E. side Monarch welding removed tube installed hairpin to connect next tubes appear two other tubes in same area had like repairs made in the past. Ran hydro 950 p.s.i.g had small weeper rewelded ran second hydro 950 p.s.i.g. Ok no leakers 5:15 p.m.
4-1-08 Replaced center stoker P.M. line shafts, welded skin leaks N. side under steam drum, removed large clinker fire box & fly ash hopper.
4-9,10-08 Replaced grate drive clutch assembly, installed rebuilt grate drive P.I.V. cleared firebox of clinkers.
5-3-08 7:00 p.m. Leaking tube economizer top bank 2nd row 20th from east back side.
5-4-08 8:30 a.m. Monarch on site welded pad welded tube appears to may have been from erosion 2" slit on top pad welded area over leak and 6" over all ran hydro 600 psig no leaks Monarch off site 3:00 p.m. Cleared clinkers from fire box, ash hopper, slagged S.H. and 1st. pass from furnace side, repaired refractory around stokers and front arch, cleared buildup ash plenum.

DPI Alpena Power Plant

Len Werda
6/20/2008

5-27-08 Repaired N. water wall tube leak 17th from rear wall also 8' sec. Chill tube N. wall center 3" x .250" found brick work bad N. wall top near S.H. have Shadd boiler coming up to check out.7:00 p.m. ran hydro 620 p.s.i.g. no leaks.
5-27-08 Maint repaired #2 stoker grease line P.M. line shafts, installed new universal on grate drive and rebuilt link belt PIV 100-grate drive reducer.
5-27-08 Changed out east igniter gas burner.
6-11,12,13-08 Furnace & Tube in tuning boilers to lower inlet loading to ESP and opacity.

#3 Boiler Repair Asset 126201
Manufacturer Wicks
Wicks Job No. 62599 11/30/1961
Capacity of Boiler filled to normal water line
Approximately 45,000 lbs/water
Type Process
Year Built 1938
Mlbs/hr 60,000
475 psig D.P.
Max. Opr. Press 475 psig
SV Press 360 psig
State # R032732
NB/MFG # 59640

October 2007 New Economizer installed
N.B. # 311, Ser. # 07-671
Certified By: WAHI Co. Fabricators Inc. Tulsa, OK.
MAWP 525, HT. SUR. 2560, BTU/HR 2899491, YR Built 2007
Contracted threw Furnace & Tube Gonzales, Louisiana, Sub Contractor Monarch Welding Bay City, MI Hydroid 10-20-07 four leakers repaired received certification.

Date Insp. 11/5/05 external non-certificate inspection Exp. Date May 26, 2006
9-13-05 Michigan Board of Boiler Rules granted six-month extension of certificate
Boiler was inspected 5-23-06 John Simons Zurich Inspector and Jeff Baldwin G.E. Betz chemist found to be in good condition boiler certificate was issued
2/7/07 Zurich Inspector & Len Werda Did external inspection to qualify for a 6-month certificate extension.
3-19-07 Met with Michigan State boiler board in Lansing on a six month extension on boiler certificates had a verbal on that date received written notice of approval 5-23-07 to extend to no later than 11-23-07.
10-18-07 Boiler inspected John Simmons Zurich
6-13-08 Zurich Inspector Benjamin Lawrence & Len Werda Did external inspection to qualify for a 6-month certificate extension found no adverse conditions.

ABB LNV Gas Burner
Peak Capacity 70,000 lb/hr
Sized to 45,000 lb/hr by utilizing smaller gas spud holes
Because of flame impingement on the side wall
Spud nipple size 13.5" x .750"

Main Steam Non-Return stp.
Rockwell Edward, 6", 300 S, Steel, FM/WCB, SRL 135, Model 6505, Conn: RFF
Rebuilt 10/07 Tested 600 psig, Order # M10-3757 TC Valve Reconditioning Services
17180 Francis, Melvindale, MI 48122 Bus: 313-928-5980

Ash Dump Valve Drive Asset 126224
Boston Gear, Cat# FWA726-300-B5-G 30
Input hp: .370, ratio 300 1F
Lube: EGO 80-90
Motor
Baldor Cat# VM3538
Fr 56C, ½ hp, 1720 rpm, Volt 230/460, Amp 2.1-2.0/1.0

I.D. Fan Asset 126210

Green Fan, Contract # F-15234, Type 36 M.C. 5438 x 80 545 BD Fan
Double Inlet, 45.5" Wheel Dia., WR-2 of Fan Rotor 3,500 lb/ft 2
Critical speed 1,200 rpm, Weight tot. 7,900 lbs, Wheel & Shaft 1,210 lbs.
Actuator: Baily-Fisher Porter, Mod. UP20C0100, S/N W58006587C
Lube: DTE Hv. Med.
Motor
Westinghouse Life Line
150 hp, Fr: 447T, Volts 460, 1180 rpm, Amps 170, S/N 6805

F.D. Fan Asset 126209

Green Fan, S/N F-14910, Type 330 RF 3924SV
Actuator Bailey- Fisher Porter, Mod. UP20C0000, S/N 97W020247
Lube: Grease
Motor
Westinghouse Life Line
50 hp, Fr: 365US, Mod. ABDP, S/N 23N1229, Volt 440, Amp 60, 1770 rpm

Old Aux. O.F.Fan Asset 126212
Clarage Fan Company
Kalamazoo, Mich.
Type CI, No. 10
s/n 5608-AH, size 10-CI
4,000 cfm @ 21" wg.
Motor Westinghouse Life line A, S#23N1671
25 hp, 3525 rpm, S/N 6108, Mod. ADBP, Fr 286U
Volts 440, Amps 30

8-30-05 Installed Used O.F. Fan Asset 126212.1 Removed 8-4-07
Twin City Fan & Blower Co., Size 915, Type RBO HP=Radial blade high pressure, ARR 1, S/N 80-26778-1-1, Motor 50 hp 1,770 rpm, 6,000 cfm @ 30" wg, Aux. O.F. Fan 4000 cfm @ 21" wg, Twin City Fan & Blower Co., 5959 Trenton Lane, MS-1196, Minneapolis, MN. 55442, Ph= 763-551-7600, Zak= 763-551-7609 Fax 763-551-7601
Lube Fan: Grease Motor:
Motor GE

50 hp, model 5K3265L208, 1,770 rpm, 440 Volts, 58 amp, Frame 326T
www.Tcf.com

New Over Fire Air Fan Installed 8-4-07
Industrial Air Technology Corp. Gaylord MI. 49735 Ph=989-707-1768
P.O. #200701180, Job #49814, Order Date 6-1-07
Type IRT, Size 296, Class 50, Discharge Position 45, Rotation CW, S/N 49814A
Model 2961RT5OCW451, Mark Overfire Air
Fan Brg. 2 11/16 Link Belt 0507 PEU 343 Rexnord, Fix PV343, Free PEV343
Impeller Type IRT Rotation CW, Damper CW
Vane WV 258554 17 ¼ 06-07, TAG 49814A1 5 Sure

Drive Belt
Gates Power Grip 1200XXH 300 107MC

Motor
Reliance Electric XE Energy Efficient Duty Master CCO493A
Frame 326T, Type P, Design B, ID #P32G3346-6 LBBVEK, Mod # P32G3346G
Hp 50, Volts 230/460, Amps 116/58.4, Hz 60, Ph 3, Code G, RPM 1775, S.F. 1.15
Amb.40 C, Incl. Class 1, Encl. TEFC, Duty Cont, P.F. 84.2, Motor Weight 639 lbs.
NEMA Nom. Eff. 94.5, Guaranteed Eff. 94.1, Max Cor. KVAR 12.0
Drive End Brg. 55BC03JP30X, Opp D.E, Brg. 55BC03JP30X

Bark Feeders Upper Drag Conv Upper
1 Asset 126207 South
Drive Rexnord Mod. AABA7644 FR0012 1B
Size Atlas, RPM in 1170, RPM out 1.9
Ratio 617.9, Service HP. 1
Lube Reducer: EGO 80-90 Motor:
Motor
Marathon Electric XRI, Mod. 8VB 184TTTS6576DPL
1170 RPM, 2 HP, Fr. 184T, Volts 460, Amps 3 Cont.**Removed 8/28/07**
New Installed 8-28-07
Marathon Mtr. High eff.
Mod. 8VH182TTTS6001 AAL, ENC TENV, S/N 01025500-07/24/01, E-216
Frame 182 T, Ph 3, E-216, 3 hp, Volts 230/460, Amps 7.6/3.8, RPM 3525

2 Asset 126208
Drive Rexnord Mod. AABA7644 FR0012 1B
Size Atlas, RPM in 1170, RPM out 1.9
Ratio 617.9, Service HP. 1
Lube: EGO 80-90
Lube Reducer EGO 80-90
Motor
Marathon Electric XRI, Mod. 8VB 184TTTS6576DPL
1170 RPM, 2 HP, Fr. 184T, Volts 460, Amps 3 Cont.**Removed 8/28/07**

New Installed 8/28/07
Marathon Mtr. XRI, Mod. DVA 182TTTS6001 ABL,Part # E-216,Type TTS,
Frame182T, Ser# 6931000-01/16-02, Ph 3, RPM 3525, Hp 3,
Volts 230/460, FL Amps 7.6/3.8

Bark Feeders Lower Asset 126205
Detroit Air Sweep Distributors Installed 1995
DSC Job No. AB-2000-MS, AFE AL95021
Two 30" Air Sweep, Air Requirements 1,400 cfm at 22" static pressure per spout
Feed Rate 30,000 lbs/hr each, 270 million btu/hr, @ 4,500 btu/lb Bark
Capable of maintaining 224,178.0139 lbs.stm/hr @300 p.s.i.g
Sterline Electric Gearbox, Fr 325DWAQ750561, S/N I 954559
Ratio 750 to 1, Input 1800 rpm, Input hp .37
Lube Gearbox: EGO 80-90 Motor:
Motor
Sterline Electric Inc, Mod RBYO34 FCA, S/N 026, Fr 56C, 1/3 hp
1720 rpm, volt 230/460, Amp 1.25-1.32

Bark Scrapper Conv. Asset 122109
Falk Reducer, Mod. 31-2EZ2-06BS, 3hp
MO 5610-5465, 230 rpm
Lube: EGO 80-90,
Motor
Westinghouse Life Line
1 hp, Fr: 213, 860 rpm, Mod. ABNV, S/N 319B315G11
Volt 220/440, Amp 4.2/2

#2 Bark Conv. To boiler Asset 122108
Browring Shaft Mounted Gear Reducer
Part# 307 5M25 Ratio 24.737 to 1, 1250 rpm
30 hp, S/N 7605
Lube: EGO 80-90
Motor
Toshiba World Energy Series
Mod. 80056FGF2A4, S/N 00712780, 5 hp, Fr 215T
1145 rpm, Volt 230/460, Amp 14.4/7.2

2002 outage replaced #8 soot blower element, Replaced bark cyclone, replaced all KO-739 2' grates,
10-30-02 Shift Engineer did external Furnace and duct check found to be in sat. condition all noted in report.
2003 Outage Replaced all KO-739 2' grates,

4-22-03 Shift Engineer did external Furnace and duct check 4th level air heater roof needs repair, basement level I.D. fan needs to be reinsulated all else sat. noted in report.
8-6-03 Shift Engineer did external Furnace and duct check 4th level air heater roof needs repair, all else sat. noted in report.
2-7-04 Shift Engineer did external Furnace and duct check basement level I.D. Fan needs to be reinsulated W.R. 200400885 all else found to be in sat. Condition and noted in report.
4-17-04 Shift Engineer did external Furnace and duct check basement level I.D. Fan needs to be reinsulated W.R. 200400885 all else found to be in sat. Condition and noted in report.

8-6-04 Recalibrated O2 monitor reading start 16.4% end 9.7%
TG 1 reading 8.0% TG 2 reading 1.8% passed
2004 Fall Outage replaced I.D. fan motor base, replaced #8 soot blower element, Changed safety valves had to modify mountings for change
10-29-04 Shift Engineer did external Furnace and duct check found to be in sat. condition all else noted in report.
2-17-05 Recalibrated O2 monitor reading start 13.8% end 13.3%
TG 1 reading 8.2% TG 2 reading 2.3% passed TG 2 reading high ordered new sensor
4-25-05 Shift Engineer did external Furnace and duct check 4th level casing south side bowed out, 3rd level inspection door south side needs to be resealed, basement level I.D. Fan needs to be reinsulated W.R. 200400885 all else found to be in sat. Condition and noted in report.
5-10-05 Recalibrated O2 monitor reading start 6.9% end 7.7%
TG 1 reading 8.2% TG 2 reading 2.2% **TG 2 Failed**
5-16-05 Replaced sensor reading Start 11.3% end 7.7%
TG 1 reading 7.5% TG 2 reading 1.2% **TG 2 Passed**
5-12-05 Replaced 900 rpm I.D. fan motor with a 1,200-rpm motor
5-25-05 Changed S. Bark feed Sprocket from72-tooth to 23-tooth
5-26-05 Changed N. Bark feed Sprocket from 72 tooth to 23-tooth
5-31-05 Removed three rows of economizer tubes East end all banks.
7-5-05 Moved sidewall O.F. air nozzles up from 12" to 40" over the grate
7-23-05 Shift Engineer did external Furnace and duct check found to be in sat. Condition all else noted in report.
8-29-05 Changed out ten bad grates
11-3-05 Recalibrated O2 monitor reading start 7.6% end 7.57%
TG 1 reading 7.4% TG 2 reading 1.0%
12/28/05 Blue Encapsulated steam and mud drum man ways
1-7-06 Blew down transmitters
PM gas Train & Electronics 1/10/06 & 1/24/06
1-13-06 Shift Engineer did external Furnace and duct check found to be in sat. Condition all else noted in report.
1-29-06 Lost main O.F. Fan Bent shaft damaged fan wheel blade came threw duct.
2-2-06 Recalibrated O2 monitor passed O 2 reading start 8.5% end 9.2% TG 1 reading 7.7% TG 2 reading1.0% passed
2-27-06 PM Gas Train Cleaned purple peeper flame scanner.

3-16-06 PM Gas Train Cleaned purple peeper flame scanner changed gas strainer, cleaned. Grates, found four bad gas spud nipples warped and leaking also three-foot section of metal burner throat burnt out from 10:00 to 1:30 position.
3-24-06 G.E. Energy tech on site working on op-2 opacity monitor changed laser and reflector mirror.
3-28-06 Main O.F. fan in operation rebuilt new shaft & bearings
4-4-06 Replaced 5 spud nipples, reshaped metal burner throat, cleaned gas strainer, purple peeper & grates
4-20-06 Lost north and center bark bin live bottom screws pulg-up switches not working elec. Dept. was aware of problem tore flutes off 3 screws.
4-22,23-06 Op-2 opacity monitor issues opacity6 drifting to high leve4ls method-9 readings were normal 22nd. Found receiver end dirty & 180 deg. Mirror scratched changed seemed to return too normal. 23rd. opacity again started to become erratic found laser end very dirty cleaned chopper wheel, zero pipe & tube opacity returned to normal made out env. Report & work order to have both sides cleaned weekly.
5/8/06 Lost main O.F. fan high vibration noisy.
5-9-06 Main O.F. Fan back in operation found loose mounting bolts.
5-16-06 Replaced 3 bad live bottom screws bark bin started feeding bark to 1&3 boiler plug up switches working again.
5-22-06 Inspected internal bark feeders and gas burner found some issues with gas burner diffuser tube all else found satisfactory
5-22-06 K & D power washed boiler did a good job.
5-22-06 Shadd Boiler Repaired Refractory
5-23-06 Zurich Inspector John Simons GE Betz Jeff Baldwin Inspected boiler found very clean no apparent problems.
5-24-06 Changed out 14 leaking dust collector cone gaskets
7-12-06 Shift Engineer did external Furnace and duct check found to be in sat. Condition all else noted in report
7-19-06 Main O.F. fan back in operation reinforced mounts
7-22-06 Power washed economizer, reinjection hoppers; dust collector tube sheet & spinners found large build up causing opacity problems.
9-2-06 Power plant crew washed #3 boiler complete cleaned grates and gas burner spuds found skin leaks in economizer skin.
9-5-06 Replaced gas burner diffuser tube
9-21-06 Blew down all transmitters pulled and inspected fly ash dump valve found no problems, Cleaned purple peeper and gas strainer. Contractor welded leaks in economizer and boiler skin.
9-30-06 Washed dust collector & economizer section inspected cones found ten bad 2 loose, 6 leaking gaskets, 2 bad try cones. Found 4' seam leak in fly ash reinjection hopper, skin leaks top of fly ash hopper, economizer and air heater inlet duct.
10-2-06 completed all repair work found on inspection 9-30-06 cleaned grates and gas burner spud nozzles. The top of the fly ash hopper needs to be replaced only temporary repair made.
10-16-06 Shift Engineer did external Furnace and duct check 4th level main stm. Soot blower stop needs to be repacked, small air leak inspection door n. side, 3rd level casing some repair needed on north and south side, 2nd level casing repair needed south side,

oper. Level small hole in air duct above S. side reinjector (taken care of) all else noted on report.
10-24-06 Recalibrated O-2 Analyzer Passed.
10-28-06 Rebuilt bark sys cross screw that feeds #2 bark belt.
10-30-06 S&A Co. repaired fly ash dump valve, repaired rear wall, busted grate framework rear lakeside corner, reattached slide pans to rear plate, worked on cleaning grates, cleaned forced draft duct 5/8 full of ash, Sealed seven holes top skin of pent house, five leaks around stay bolts holding pent house together & resealed two inspection doors should show up in improved efficiency and opacity.
10-31-06 Cleaned gas spuds and P.M. gas train.
11-21-06 Finished cleaning F.D. duct under grate worked on grates.
12-26-06 Repaired gas burner diffuser and cleaned gas spuds.
1-8-07 Replaced drum vent, cleaned grates, Devere in on gas burner replaced all spud nipples elbows, elbows repaired diffuser and burner throat.
1-22-07 Cleaned and freed up grates.
2-4-07 Cleaned Grates and over grate seal support area.
2-5-07 Replaced Over grate seal support angles two 63" x 3" x 3/8"
3-22-07Shift Engineer Did external furnace and duct check three areas noted level four roof of air heater south side needs insulation work, 2nd level boiler casing south side back needs insulation work along with N.W. corner under I.D. fan, Basement level fly ash hopper dump valve not opening all the way issued W.R.200700913 for repair, maint repaired all else listed on the report.
4-2-07 Repaired fly ash hopper dump valve and cleaned grates
5-30-07 Shift Eng. Did external furnace and duct check all sat. Found minor air leak around shaker grate shafts entering boiler packed with K-wool all else noted on report
6-14-07 Shift engineer did 2nd quarterly external furnace and duct check found only minor leaks shown in report.
6-26-07 Washed boiler complete, repaired gas burner diffuser, replaced UP-10 gas burner combustion air actuator.
7-17-07 Blew down all transmitters, PM gas train, recalibrated gas usage meter.
8-4-07 Furnace & Tube starting O.F. air duct, fan, and furnace refractory upgrade bark burn project. Found Gas burner throat metal work and front wall refractory in bad shape.

8-5-07 Furnace in Tube continuing work
8-6-07 Furnace in Tube continuing work,Shad Boiler repaired front wall.
8-7-07 Furnace in Tube continuing work, Devere in replaced gas burner throat and spud nipples.
8/28/07 Down day installed new chip feed controls, Drive motors, offset feeder chain scrappers, new blast gate O.F. air duct feeding distributors & air Wg gauge on front header.
9-17-07 Started Installation of ductwork for ESP and installing new F.D., O.F. air and bark feed controls Siemens Mod. 353A4F1NNENNNA4.
9-19-07 Advanced Boiler and Furnace & Tube working with P.H. crew on characterized combustion air flow and rated feed rate curves in controls to fire 100 % fuel chips.
9-27-07 Could not recalibrate O-2 analyzer Tech. found problem with GUI assembly # 1N04859G02 issued Req. for new this date will install and recalibrate as soon as assembly arrives.

10-18-07 **November boiler inspection tasks** Boiler inspected found feed water pipe inside steam drum loose Monarck Welding repaired boiler passed inspection, Dust collectors 13 leaking seal gaskets, 3 cones, 7 tri-cones, 16 spinners

10-27-07 Gas burner Repair

Power Service

Boiler and Environmental Plant Services Division
Technical Services
ALSTOM Power Inc.
1245 East Diehl Road Suite 304
Naperville, IL 60563
Tel. 630-505-2440

November 27, 2007
Len Werda
Decorative Panels Inc.
Alpena Michigan
Subject: #3 Boiler Gas Burner Repairs
Dear Len,
Please find the report by our Service Engineer, Bob Grant, on the recent repairs to the
burner and gas ring. Please review and let me know if there are any questions or concerns.
Reagdrs,
Mark Prescott
Area Service Manager
630-245-8488
DPI Alpena Burner Repair November 27, 2007
2
Bob Grant
November 2007
Introduction
DPI requested assistance in resolving a gas leak issue with their gas burner on boiler
#3. Flames were reported to be coming out over the top of the burner and ignition was
actually taking place outside of the boiler above the burner. Strong gas smells were
reported throughout the powerhouse so the unit was shut down. The loss of this boiler
reduced some of the process capabilities of the facility.
Description

The gas burner and flue gas recirculation system was supplied by Alstom Power. The flue gas recirculation has not been used on this boiler and there are no plans to put it in service.

The boiler is a Wicks Boiler with a Riley Stoker vibrating grate and Detroit pneumatic feeders. The overfire air system has been modified.

The stoker side frame has been pushed out by refractory that was installed under the side waterwall headers. When the headers thermally grew, the refractory did not provide any room for expansion so the side frame was forced to move.

Burner throat refractory was not installed properly. The refractory was too thick, it covered up the gas nozzles, and it was held in place with steer horn anchors that were laid on their side but stuck out too far for proper air/gas flow around the burner.

The vibrating grate can't operate properly because a project of side wall refractory additions did not leave enough room for thermal expansion. And the grate is being bound up.

Work Scope

An air test was performed to verify a leak in the gas supply header. Colored chalk was used to identify the cracks. Chalk came out during the test verifying that there was a leak but the spot of the leak was inconclusive because there were multiple plates and opportunities for the air/chalk mix to channel around.

Air/chalk came out at the top of the burner and flue gas recirculation duct. The flue gas recirculation duct was cut away from 9 o'clock to 3 o'clock. The back plate of the burner was cut away in 2-inch wide strips to expose the gas supply header. A crack was found running from 12 o'clock to 3 o'clock in the gas supply header. Unfortunately, some holes were made in the gas supply header when the burner back plates were cut away, these holes were weld repaired.

Burner throat refractory was repaired as good as possible given the time frame and the fact that the unit will be down again in November and better repairs will be scheduled at that time. Steer horn refractory anchors were laid on their side and installed to hold

some refractory that was installed previously were bent back out of the way as best as
could possibly be done without taking a lot of time to cut them out.
Some of the burner and boiler casing steel was removed to facilitate repairs. The majority of what was removed was burned and needs to be replaced with new material
or was part of the flue gas recirculation duct that won't be replaced.

Recommendations

1) Seal the opening in the burner back plate that was left to watch for any more thermal grow and weld failure issues.
2) Complete the removal of the flue gas recirculation system so there is no area for
dust and combustibles to lay out close the boiler where ignition could become an issue.
3) Replace the burner throat tile and install new refractory properly. The steer horn
anchors should be removed.
4) Replace the burner steel in the upper portions of the burner back plate and boiler skin.

DPI Alpena Burner Repair November 27, 2007

5) Review the project that put so much refractory on the side walls of the boiler with
little or no provision for thermal expansion.
6) Provide some operator training to discuss the differences between firing the variety of fuels this plant is trying to put through the boilers.

4-9,10-08 Made repair around gas burner throat connecting to boiler outside skin, repaired steam leak soot blower east drain line. Cleaned Grates.
6-11,12,13-08 Furnace & Tube in tuning boilers to lower inlet loading to ESP and opacity.

DPI Alpena Power Plant

1 & 2 Boiler Blow Down Valves

Yarway Unit Tandem Hard Seat Valve
Size 1 1/2" Fig. 6981 CWP 3705 psi CL 1500 Trim CR 13 or 321
Max Blow off Serv. 2455 psi FU/HF-INT-HF
Pipe 1 ½" Sch. 80, Fittings A-105 material 3000 psi

POWER PLANT SAFETY VALVES

#1 BOILER
Juris # MIR026437 , Type=water tube, Use= Power, NB/MFG# 19503, Manufacturer=B&W,
Year Built 1956
State # R026437
Next Inspect Due 11/5/05

SUP. HEAT
MANUFACTURER: CONSOLIDATED
MODEL 2727D-1-X1, SIZE 2" x 3", fig# 2727D-1-X1, JOB# 1040-3
SERIAL# BY61815, SET PRES! 925 P.S.I.G., LIFT .338, TEMP. 1000
CODE STAMP UV/NB, DATE 10/17/02, CAP. 47502 lbs/hr
Rebuilt & Tested Valve Reconditioning, Melvindale, MI. 48122 Bus: 313-928-5980, 10/07 , Shop VR Cert S10-3757 TC, VR# 338 Repair ser# 3757-1 TC

N. SAT.
MANUFACTURER: CONSOLIDATED
MODEL 2727B-1-X1, SIZE 2" X 3", FIG# 2727B-1-X1, JOB# 1040-5
SERIAL# BY62319, SET PRES 945 P.S.I.G., LIFT .338, TEMP SAT.
CODE STAMP UV/NB, DATE 10/17/02, CAP. 63834 lbs/hr
Rebuilt & Tested Valve Reconditioning, Melvindale, MI. 48122 Bus: 313-928-5980, 10/07 , Shop VR Cert S10-3757 TC, VR# 338 Repair ser# 3757-3 TC

S. SAT.
MANUFACTURER:CONSOLIDATED
MODEL 2727B-1-X1, SIZE 2" X 3", FIG# 2727B-1-X1, JOB# 1040-1
SERIAL# BY49218, SET PRES 975 P.S.I.G., LIFT .338, TEMP SAT.
CODE STAMP UV/NB, DATE 10/17/02, CAP 65830 lbs/hr @ Sat Date 3/96
Rebuilt & Tested Valve Reconditioning, Melvindale, MI. 48122 Bus: 313-928-5980, 10/07 , Shop VR Cert S10-3757 TC, VR# 338 Repair ser# 3757-2 TC

#2 BOILER
Juris # MIR026438, Type= water tube, Use=Power, NB/MFG# 19504, Manufacturer=B&W,
Year Built= 1957
State # R026438
Next Insp. Due 11/5/05

SUP. HEAT
MAUFACTURER: CONSOLIDATED
MODEL 2727D-1-X1, SIZE 2" X 3", FIG#2727D-1-X1, JOB# 1040-4
SERIAL# BY62320, SET PRES 925 P.S.I.G., LIFT .338, TEMP 1000
CODE STAMP UV/NB, DATE 10/17/02, CAP. 47502 lbs/hr

N. SAT.
MANUFACTURER: CONSOLIDATED
MODEL 2727B-1-X1, SIZE 2" X 3", FIG# 2727B-1-X1, JOB# 1662-1 REPAIR
SERIAL# BY62639, SET PRES 975 P.S.I.G., LIFT .338, TEMP SAT.

CODE STAMP UV/NB, DATE 9/18/03, CAP 65830 lbs/hr

S. SAT.
MANUFACTURER: CONSOLIDATED
MODEL 2727B-1-X1, SIZE 2" X 3", FIG# 2727B-1-X1, JOB# 1662-2 REPAIR
SERIAL# BY61814, SET PRES 945 P.S.I.G., LIFT .338, TEMP SAT.
CODE STAMP UV/NB, DATE 9/18/03, CAP. 63834 lbs/hr

#3 BOILER
Juris # MIR032732, Type= water tube, Use= Power, NB/MFG # 59640 Manufacturer Wickes
Year Built= 1938,
State # R032732
Next Insp. Due 11/5/05

Main NR Stop Rockwell Edwards 135 4-17883
Size 6", Stem & Disk CR-13, Pressure 300, Body WCB, SRL 135/6
July 8,1993 31701 Rebuilt by VRS 10-07

N. SAT.
MANUFACTURER: CONSOLIDATED
TYPE: 181KB-0-6X1-22, SIZE 2"X3", RENEW VALVE GREEN TAG-2/98
SERIAL # BY 63958, SET PRES 355 P.S.I.G., LIFT .383, TEMP SAT.
CODE STAMP UV/NB, B/M-CC 2079, CAP. 31596 lbs/hr, DATE 2/98
INLET/OUTLET FLG. RATING 600# X 150#
REBUILT 11-4-04 RENEW VALVE TAG # 2432-2

S. SAT. old OUT OF SERV. 11/1/04
MANUFACTURER:CONSOLIDATED
TYPE: 1415LA20, SIZE 4", GREEN TAG 4/90
SERIAL # BE 1291, SET PRES 360 P.S.I.G., LIFT .36, TEMP SAT.
CODE STAMP UV/NB, B/D 14 P.S.I.G., CAP. 49400 lbs/hr, DATE 4/90

S. SAT = #3 BOILER new
MANUFACTURER: CONSOLIDATED CODE V/NB
TYPE 1811LB-0-6X7-22, SIZE 2 ½", S/N BY-66300, LIFT: .477
SET 360 P.S.I.G., CAP: 49,655 lbs./hr. AT SAT., B/M CC-2079
DATE: 5-98, ASSEMBLED & TESTED TAG RENEW VALVE CO. MR-5598-1
REBUILT 7/28/04 RENEW VALVE TAG JOB# 2244-1 SET 360 P.S.I.G. CODE{VR}

ECON. SAFETY
MANUFACTURER: CONSOLIDATED
TYPE: 1912 JT-1, SIZE 2 ½"x4", SERIAL # TJ 72293
SET PRES 525 P.S.I.G. HOT, SET 541 P.S.I.G. COLD
CAP. 38827 lbs/hr, DATE 8/94 CODE UV/NB
INLET/OUTLET FLG. RATING 600# X 150#
REBUILT 11-4-04 RENEW VALVE SHOP # 2432-1

Front Office Boiler
Manufacturer=Amer Rad, Boiler type= HWH, Year Built=1956, Max Opr. Press=30 psig, Sv Press 30 psig
State# R062210, NB/MFG # A712 W0
Last Insp.=11/05/2004

TURB. EXT

TYPE: CROSBY
STYLE HC 25, SIZE 4 Q 8, SHOP # 37146
SET 359 P.S.I.G., B/D 13, CAP. 166200 lbs/hr, SH 670 deg. F.
DATE 9/86, CODE V/NB

TURB. AIR EJECTORS 4 TOTAL
MANUFACTURER: JAYCO INC.
SIZE: ½", FIG: 150,
SET: 20 P.S.I.G., CAP: 132

TURB. EXT. SPARE
TYPE: CROSIBY
STYLE HC -26, SIZE 4 Q 8, SHOP # 47051
SET 359 P.S.I.G., B/D 14, CAP. 191717 lbs/hr/sat 3,
SEAT 4.375, LIFT .937, DATE 12/4/96, CODE V/NB

300 P.S.I.G. LINE TO MILL
MANUFACTURER: CONSOLIDATED, CODE STAMP UV/NB
TYPE: 1912RT-2-34, SIZE 6" X 10", SERIAL # TJ02829
SET 325 P.S.I.G., COLD SET 335 P.S.I.G., BLOW DOWN 23 #
CAP. 303407 lbs/hr., TEMP. SAT., INLET/OUTLET FLG. RATING 600 X 150
DATE: 8-2000, SERV. 1/126/02 SHOP # 1040-2, SPRING # 0623CR

M-4 HEATING STATION
MANUFACTURER: CROSBY, CODE {UV} A.S.M.E. STM.
SHOP# 23126, STYLE HO-A, SIZE 4" X 6"
SET 30 P.S.I.G., B.D./2, CAP. Lbs./hr./sat. 5,650 SUP.
IRON 415 deg. F. AT 10 % A.C.C.

TANKS

BACK WASH TANK
MANUFACTURER: CONSOLIDATED
TYPE: 1910HC-34, S/N TL82882, SIZE: 2" X 3"
SET: 30 P.S.I.G., CAP. 1,916 lbs./hr.
DATE: 11-99, CODE STAMP UV/NB

D.A. TANK
MANUFACTURER: KUNKLE, NB/UV
MODEL: 6252FLM01-LS, S/N 99K376, SIZE 4"
SET: 30 P.S.I.G., CAP. 8,541 lbs./hr.
Date:1-17-02 { FLANGED INLET & THREADED OUTLET}

FLASH STEAM ABOVE D.A. TANK
MANUFACTURER: FARRIS ENGINEER
TYPE: 1808, S/N 1 2000E, SIZE 2 ½"
SET: 30 P.S.I.G., CAP. 3330 lbs./hr., {C/D 4}
LIFT .13, ORF. 2.51 {THREADED INLET & OUTLET}

REACTION TANK
MANUFACTURER: CONSOLIDATED
TYPE: 1910KC-1-34, S/N TM12130, RENEW # MR11299-2
SIZE 3" X 4", SET: 30 P.S.I.G., COLD SET: 31 P.S.I.G.
CAP., 4490 lbs./hr., TEMP. SAT., B/M CC-2079
DATE: 11/99, CODE STAMP UV/NB

BOILER CHEMICAL PUMP RELIEF VALVE

FOUR TOTAL

KUNKLE VALVE
266C* ½"
SET AT 1500# LIQUID

SPARE SAFETY VALVES

#1 = #1 & #2 BOILER S.H.
MANUFACTURER: CONSOLIDATED CODE V/NB
TYPE: 2727D-1-X1, SIZE: 2", S/N BY-67353
SET: 925 P.S.I.G., LIFT .338, CAP: 47,502 lbs./hr. AT 1005deg. F.
B/M CC2079, DATE 2-1-00
RENEW TAG: SET: 925 P.S.I.G., DATE: 10-4-01, JOB# 367-1 VR#6

#2 = #1 & #2 BOILER SAT.
MANUFACTURER: CONSOLIDATED CODE NB
TYPE: 2727B-1-X1, SIZE 2", S/N BY-62640
SET: 975 P.S.I.G., LIFT: .338, CAP: 65,830 lbs./hr. AT SAT.
B/M 4A22365520001, DATE 7-97

#3 = #1 & #2 BOILER SAT:
MANUFACTURER: CONSOLIDATED CODE SEC.-1-xxx
TYPE: 1557-HC, SIZE: 2", S/N N/A, SIZE 2", LIFT .274
SET: 940 P.S.I.G., CAP: 34,725 lbs./hr. AT SAT.
DATE: 7-83
RENEW TAG: SET 925 P.S.I.G., B/D .37, CAP: 34,179 lbs./hr.
DATE OF REPAIR 12/2/94, JOB: # 8136

#5 = REACTION TANK
MANUFACTURER: CONSOLIDATED
TYPE: 1902-KC, SIZE 3", S/N TB-37841, ORFICE: K
SET: 30 P.S.I.G., CAP: 4,384 lbs./hr. B/M IRON
REPAIR TAG: NASVI, V/R .242, CAP: 4,384 lbs./hr.
DATE: 12-92, S.O.73924-2

#6 = BACK WASH TANK
MANUFACTURER: CONSOLIDATED CODE UV/NB
TYPE: 1910-HC-1-34, SIZE: 2" X 3", S/N TL-82880

SET: 30 P.S.I.G., COLD SET 31 P.S.I.G., TEMP: SAT.
CAP: 1916 lbs./hr., B/M CC-2079, DATE 10-99
RENEW VALVE CO. TAG: MR-101499-11

#7 = BACK WASH TANK
MANUFACTURER: CONSOLIDATED CODE UV/NB
TYPE: 1901-HC, SIZE 2", S/N TA-62803
REPAIR TAG NASVI CODE VR, SET: 30 P.S.I.G.
CAP: 1,670 lbs./hr., S.O. 93924-3, DATE: 12-92

#8 = D.A. TANK
MANUFACTURER: LONERGAN VALVE DIV. CODE V/N
MODEL: GIFFLM22-AS, SIZE 4", K-92
REPAIR TAG: NASVI, SET 30 P.S.I.G., B/D 2 P.S.I.G.
CAP: 5,874 lbs./hr., S.O. 76739-1, DATE 3-93

COMPRESSED AIR RELIEV VALVES

AIR LINE TO ASH GATES
MANUFACTURER: JAYCO INC.
SIZE: 1", FIG: 149, SET: 15 P.S.I.G., CAP: 184

#1 SUL-AIR
MANUFACTURER: KUNKLE VALVE DIV.
MODEL: 6010 GF01-KM, SIZE: 1 ¼", SET 140 P.S.I.G., CAP: 1504

#3 SUL-AIR
MANUFACTURER: KUNKLE VALVE DIV.
MODEL: 6010 HC01, S/N TJ2BSIG, SIZE 1 ½", SET 175 P.S.I.G., CAP 2905

MAIN AIR RECEIVER
MANUFACTURER: JAYCO INC., SIZE 3", FIG: TJ3, SET 125 P.S.I.G., CAP: 2905

Spare Stm. Stops

Edwards-Intex 1 or 2 Boiler S.H. non-return
Fig 4006-Y, Body Melt 4663-7, C-66444, S=900,F=1013, WC 6
Stem CR 13, Disk HF, Seat HF, Body Steel, Repaired Renew Valve 3-16-94

DPI Alpena Power Plant

6-20-08

Mr. Robert Aben
Chief Inspector, Boiler Division
P.O. Box 30254
Lansing, MI 48909

Dear Mr. R. Aben, Mr. B. Valance

This letter indicates the License levels held by the Engineers and Boiler operators as well as training.

N.I.U.L.P.E Power Engineers		I.D. #	
Leonard D. Werda	Chief	12381,	Detroit 3rd. LIC2001-04481
Michael G. Kramer	Chief	12380	
Anthony F. Regan	1st.	15616	
David F. Frysinger	1st.	24762	
Gary M. Lamb	2nd.	16817	
Gene P. Samp	3rd.	25520	
Jeff A. Whaley	4th.	25525	
Thomas M. Romero	4th.	41078	

I hold a commission threw N.I.U.L.P.E. as technical instructor and examiner with the new employees I am setting up a training course for low pressure boilers this fall and a course on high pressure boilers this winter I believe training is a requirement to working with power boilers to have well qualified operators.

Sincerely

Leonard D. Werda
Chief Engineer
Power Plant Superintendent
Decorative Panels Alpena
416 Ford Ave.
Alpena, MI. 49707
Bus: 989-356-8519
Cell: 989-464-7028
Fax 989-356-2504
E-mail Len.Werda@decpanels.com

JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LABOR & ECONOMIC GROWTH
LANSING

KEITH W. COOLEY
DIRECTOR

August 26, 2008

(Document BLR2008-10)

To: Members, Board of Boiler Rules

From: Robert J. Aben Jr.

Subject: Lansing Board of Water and Light Section 23 Renewal

A review was conducted on August 12, 2008 for the purpose of determining Lansing BWL compliance with P.A. 290 in the conduct of repairs to their boilers and piping at its facilities in Lansing, Michigan. Assistant Chief Inspector William Vallance conducted the review in the presence of Mr. Dave Bashore, Welding QC Manager for BWL. The review was conducted in accordance with the attached Qualification Review Report.

Recommendation:

Based on review of documentation and observations made during the above review and historical documentation on file with the boiler division, I am recommending a motion by the Board of Boiler Rules that the Section 23 exemption program for repairs to boilers and piping be granted to Lansing BWL facilities for a period of three years to expire on August 12, 2011 or continue until the next review can be conducted.

Any violation of the boiler law and rules during this period shall be cause for suspension of this exemption by the Chief Inspector. Re-instatement of the exemption may only be granted by the Board of Boiler Rules.

MICHIGAN BOARD OF BOILER RULES

P.O. Box 30254
Lansing, MI 48909
(517) 241-9334

UTILITY/INDUSTRIAL PLANT REPAIR/INSTALLATION QUALIFICATION REVIEW REPORT
(Re:Boiler Act Of 1965, Sec. 23)

Date Review Conducted
8-12-08

Application type:
New ____ Renewal X

1. Organization's Name and Business Address.

LANSING BOARD OF WATER & LIGHT
Name

830 E HAZEL LANSING MI 48901
Street, City, State, Zip

UTILITY
Principal Business

2. Identification of person responsible for compliance with state boiler law and rules.

Name DAVE BASHORE

Title WELDING QUALITY CONTROL MANAGER

Mailing Address PO BOX 13007
Street
LANSING
City
MI 48901
State Zip
(517) 702 6477
Phone Number

3. Authorized Inspection

Agency. HSB CT

4. ASME Symbol Stamp(s) Held: (Symbol, Number, Expiration Date)

___, ____, _____; ___, _____, _____; ___, _____, _____;

5. National Board Symbol Stamp(s): (Symbol, Number, Exp. Date)

___, ____, _____; ___,

6. Are the boilers and piping owned and operated by the applicant. Yes X No_____

7. Type of code items to be repaired/installed.
Section I: Boilers X Boiler external piping X

Section IV: Boilers_____ Boiler non-external piping X

Safety Valves: Sec. I_____ Section. IV_____
Section. VIII_____

8. Where are repairs done?

Shop_____ Field_____ Shop and Field X

9. Does the organization have the latest edition of the applicable Codes and Addenda and Boiler Law and Rules.

Section I X Section IV_____ Section. VIII_____

Section IX X B31.1 X NBIC X

Michigan Boiler Law and Rules X

10. Does the organization have a Quality Assurance Manual or Procedures for the work anticipated? Yes X No_____

11. Does the organization have and maintain a maintenance record for each exempt boiler? Yes X No_____ Applicant has committed to prepare and submit a logbook for Boiler Divisions comment

_____

12. How is Heat Treatment capability provided?

In-house_____ Procedures Available_____
Sub-contracted X

13. How is Non-destructive examination capability provided?

In-house X - VT Procedures Available X
Sub-contracted X

14. Does the QA Manual or Procedures provide for pressure tests?

Yes X No _____ Procedures Available X

15. What welding processes are used?

SMAW X SAW _____ GMAW _____ GTAW X

16. Are appropriate welding procedures available and qualified to ASME Code Section IX?

Yes X No _____

17. Is evidence available that welders are qualified to procedures?

YES X No _____

17a. Is a Continuity Log maintained? Yes X No _____

18. Are welders regular employees? Yes X No _____

19. Does the organization have procedures to control the procurement and handling of code materials?

Yes X No _____

20. Should this organization be granted a Section 23 exemption?

Yes X No _____

Will Vallance 8-12-08
Inspector Signature Date

Robert J. Beck 8-26-08
Chief Inspector Date

_____ _____
Chair, Boiler Board Date

Rev 4 4/29/2003

JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LABOR & ECONOMIC GROWTH
LANSING

KEITH W. COOLEY
DIRECTOR

(Document BLR2008-11)

August 22, 2008

To: **Members, Board of Boiler Rules**

From: Robert J. Aben, Jr.

Subject: Violations Issued

Attached you will find the violation reports from the National Board. The report contains violations issued in Michigan for the period of April 1 thru June 30, 2008, and the second quarter numbers for all reporting jurisdictions. The first quarter report is based on 93 reports from 45 jurisdictions consisting of 197,249 inspections with 19,253 violations. This is a 10% violation rate.

The category showing the highest number of violations is Boiler Controls reporting 6,639. The second highest is Boiler Piping and Other Systems reporting 4,195 violations.

Report of Violation Findings

Second Quarter Report
2008

Category	Number		
1. Boiler Controls			
1.1 Low Water Cutoff/Flow Sensing Devices	1651		
1.2 Pressure Gages	581		
1.3 Water Gage Glass	315		
1.4 Pressure Controls	294		
1.5 Temperature Controls	1890		
1.6 Undefined Controls Violations	1908		
Total Boiler Controls Violations:	**6639**	Percent of Total Violations:	**34%**
2. Boiler Piping and Other Systems			
2.1 Main Steam System	63		
2.2 Bottom Blow/Drain Systems	310		
2.3 Feedwater, Condensate/Return Systems	1209		
2.4 Expansion Tanks/Heating System Piping	390		
2.5 Casing, Stack Breaching and Flue	330		
2.6 Burners and Fuel Supply Systems	1237		
2.7 Undefined Boiler Piping/Other Systems	656		
Total Boiler/Other Violations:	**4195**	Percent of Total Violations:	**22%**
3. Boiler Mfg Data Report/Nameplate			
3.1 No Data Report	185		
3.2 Nameplate Stamping Incorrect/Missing	113		
3.3 Undefined MDR/Nameplate	49		
Total MDR Violations:	**347**	Percent of Total Violations:	**2%**
4. Boiler Components			
4.1 Fireside Water Leaks	366		
4.2 Baffles and/or Refractory	146		
4.3 Furnace and Fireside	135		
4.4 Waterside	421		
4.5 Superheaters	9		
4.6 Economizers	3		
4.7 Installation	180		
4.8 Undefined Boilers	1399		
Total Boiler Violations:	**2659**	Percent of Total Violations:	**14%**

Category	Number		
5. Pressure Relieving Devices For Boilers			
5.1 Installation	1470		
5.2 Operation	1124		
5.3 Undefined Boilers PRDValve	460		
Total PRD Violations:	**3054**	Percent of Total Violations:	**16%**
6. Pressure Vessels			
6.1 Installation	484		
6.2 Material Condition	303		
6.3 PV Mfg Data Report/Nameplate	102		
6.4 PV Presure Relieving Devices	943		
6.5 Undefined Pressure Vessel	358		
Total Pressure Vessel Violations:	**2190**	Percent of Total Violations:	**11%**
7. Repairs and Alterations			
7.1 Unqualified Organization	11		
7.2 Unauthorized Repair	78		
7.3 Code Definciencies	12		
7.4 Undefined Repairs and Alterations	68		
Total Repairs and Alterations	**169**	Percent of Total Violations:	**1%**

8. Summary:

Number of Jurisdictional Reports This Period:	**93**

	Boilers	***PV's***	***Total***
Total Number of Inspections:	**114,431**	**82,818**	**197,249**
Total Number of Violations:	**17,063**	**2,190**	**19,253**
Percent of Violations per # of Inspections:	**15%**	**3%**	**10%**

Report of Violation Findings

Michigan
April 1 thru June 30, 2008

Category	Number		
1. Boiler Controls			
1.1 Low Water Cutoff/Flow Sensing Devices	26		
1.2 Pressure Gages	7		
1.3 Water Gage Glass	0		
1.4 Pressure Controls	3		
1.5 Temperature Controls	24		
1.6 Undefined Controls Violations	64		
Total Boiler Controls Violations:	**124**	Percent of Total Violations:	**26%**
2. Boiler Piping and Other Systems			
2.1 Main Steam System	2		
2.2 Bottom Blow/Drain Systems	17		
2.3 Feedwater, Condensate/Return Systems	2		
2.4 Expansion Tanks/Heating System Piping	14		
2.5 Casing, Stack Breaching and Flue	1		
2.6 Burners and Fuel Supply Systems	171		
2.7 Undefined Boiler Piping/Other Systems	0		
Total Boiler/Other Violations:	**207**	Percent of Total Violations:	**44%**
3. Boiler Mfg Data Report/Nameplate			
3.1 No Data Report	0		
3.2 Nameplate Stamping Incorrect/Missing	4		
3.3 Undefined MDR/Nameplate	1		
Total MDR Violations:	**5**	Percent of Total Violations:	**1%**
4. Boiler Components			
4.1 Fireside Water Leaks	5		
4.2 Baffles and/or Refractory	0		
4.3 Furnace and Fireside	0		
4.4 Waterside	0		
4.5 Superheaters	0		
4.6 Economizers	0		
4.7 Installation	39		
4.8 Undefined Boilers	12		
Total Boiler Violations:	**56**	Percent of Total Violations:	**12%**

Report of Violation Findings

Michigan
April 1 thru June 30, 2008

Category	Number		
5. Pressure Relieving Devices For Boilers			
5.1 Installation	36		
5.2 Operation	39		
5.3 Undefined Boilers PRDValve	2		
Total PRD Violations:	**77**	Percent of Total Violations:	**16%**
6. Pressure Vessels			
6.1 Installation	0		
6.2 Material Condition	0		
6.3 PV Mfg Data Report/Nameplate	0		
6.4 PV Presure Relieving Devices	0		
6.5 Undefined Pressure Vessel	0		
Total Pressure Vessel Violations:	**0**	Percent of Total Violations:	**0%**
7. Repairs and Alterations			
7.1 Unqualified Organization	0		
7.2 Unauthorized Repair	1		
7.3 Code Definciencies	0		
7.4 Undefined Repairs and Alterations	0		
Total Repairs and Alterations	**1**	Percent of Total Violations:	**0%**

8. Summary:

Number of Jurisdictional Reports This Period:	**3**

	Boilers	***PV's***	***Total***
Total Number of Inspections:	**3,121**	**0**	**3,121**
Total Number of Violations:	**470**	**0**	**470**
Percent of Violations per # of Inspections:	**15%**	**#Num!**	**15%**